THE SBCT INFANTRY RIFLE COMPANY

JANUARY 2003

HEADQUARTERS
DEPARTMENT OF THE ARMY

DISTRIBUTION RESTRICTION: Approved for public release; distribution is unlimited.

Field Manual
No. 3-21.11

Headquarters
Department of the Army
Washington, DC, 23 January 2003

THE SBCT INFANTRY RIFLE COMPANY

CONTENTS

Page

PREFACE x

CHAPTER 1. OVERVIEW OF THE SBCT INFANTRY RIFLE COMPANY
Section I. Introduction 1-1
1-1. Characteristics of the SBCT Infantry Rifle Company 1-1
1-2. Operational Premise 1-1
1-3. Capabilities and Limitations of the SBCT Force 1-1
Section II. Organization 1-2
1-4. Brigade Organization 1-2
1-5. SBCT Infantry Battalion Organization 1-3
1-6. Company Organization 1-4
1-7. SBCT Infantry Rifle Platoon 1-6
1-8. Mobile Gun System Platoon 1-10
1-9. Sniper Team 1-11
1-10. SBCT Combat Support Assets 1-12
1-11. SBCT Combat Service Support Assets 1-13
Section III. Duties and Responsibilities of Key Personnel 1-14
1-12. Company Commander 1-14
1-13. Executive Officer 1-14
1-14. First Sergeant 1-15
1-15. Platoon Leader 1-16
1-16. Platoon Sergeant 1-16
1-17. Fire Support Officer 1-16
1-18. Communications Specialist 1-17
1-19. Radiotelephone Operator 1-17
1-20. Supply Sergeant 1-17
1-21. Nuclear, Chemical, and Biological NCO 1-18
1-22. Mortar Section Leader 1-18
1-23. Sniper Team Leader 1-18
1-24. Armorer/Supply Specialist 1-18
1-25. Company Medic 1-19
Section IV. Battlefield Operating Systems 1-19
1-26. Command and Control 1-19
1-27. Intelligence 1-20
1-28. Maneuver 1-20

DISTRIBUTION RESTRICTION: Approved for public release; distribution is unlimited.

Page
1-29. Fire Support 1-20
1-30. Air Defense 1-20
1-31. Mobility and Survivability 1-21
1-32. Combat Service Support 1-21

CHAPTER 2. BATTLE COMMAND AND TROOP-LEADING PROCEDURES
Section I. Command and Control 2-1
2-1. Command and Control 2-1
2-2. Concept of Command and Control 2-1
2-3. Leadership 2-2
2-4. Fundamentals of Command and Control 2-2
2-5. Command and Control Responsibilities 2-3
2-6. Combat Orders 2-4
Section II. Troop Leading Procedures 2-5
2-7. Application of Troop-Leading Procedures 2-5
2-8. Receive the Mission 2-7
2-9. Issue a Warning Order 2-22
2-10. Make a Tentative Plan 2-22
2-11. Initiate Movement 2-26
2-12. Conduct Reconnaissance 2-27
2-13. Complete the Plan 2-27
2-14. Issue the OPORD 2-28
2-15. Supervise and or Refine 2-28

CHAPTER 3. MOVEMENT
3-1. Tactical Movement and Enemy Contact 3-1
3-2. Movement Techniques 3-2
3-3. Movement Formations 3-8
3-4. Use of Movement Formations 3-19
3-5. Control Techniques 3-22
3-6. Security during Movement 3-23
3-7. Movement as Part of a Battalion 3-24

CHAPTER 4. OFFENSIVE OPERATIONS
Section I. General Planning Considerations 4-1
4-1. Characteristics of the Offense 4-1
4-2. Types of Offensive Operations 4-2
4-3. Forms of Maneuver 4-3
Section II. Sequence of Offensive Operation 4-7
4-4. Assembly Area 4-7
4-5. Reconnaissance 4-8
4-6. Movement to the Line of Departure 4-8
4-7. Maneuver 4-8
4-8. Deployment 4-9
4-9. Assault 4-9
4-10. Consolidation and Reorganization 4-10

Page
Section III. Planning Considerations 4-10
4-11. Fire Support 4-10
4-12. Mobility, Countermobility, and Survivability 4-11
4-13. Air Defense 4-11
4-14. Combat Service Support 4-11
4-15. Aviation 4-12
4-16. Integration of Vehicles 4-13
Section IV. Actions on Contact 4-13
4-17. Developing Actions on Contact 4-14
4-18. Time Requirements for Actions on Contact 4-14
4-19. The Four Steps of Actions on Contact 4-14
Section V. Company Offensive Operations 4-17
4-20. Attack Characteristics 4-17
4-21. Hasty and Deliberate Attacks 4-18
4-22. Attacks during Limited Visibility 4-21
Section VI. Other Offensive Operations 4-21
4-23. Planning Considerations 4-21
4-24. The Search-and-Attach Technique 4-22
4-25. The Approach-March Technique 4-28
4-26. Considerations 4-31
4-27. Exploitation 4-33
4-28. Pursuit 4-33
Section VII. Special Purpose Attacks 4-33
4-29. Ambush 4-34
4-30. Raid 4-35
4-31. Spoiling Attack 4-35
4-32. Counterattack 4-36
4-33. Feint 4-36
4-34. Demonstration 4-37
Section VIII. Attack Techniques 4-37
4-35. Assault of a Strongpoint 4-37
4-36. Attack during Limited Visibility 4-45
Section IX. Common Offensive Activities 4-54
4-37. Infiltration 4-54
4-38. Overwatch 4-58
4-39. Follow and Support 4-59
4-40. Bypass 4-60
4-41. Clear an Objective 4-60
4-42. The Company as Reserve 4-62
4-43. Security Operations 4-63

CHAPTER 5. DEFENSIVE OPERATIONS
Section I. General Planning Considerations 5-1
5-1. Defensive Operations 5-1
5-2. Purposes 5-2

Page
Section II. Characteristics of the Defense 5-2
5-3. Preparation 5-2
5-4. Security 52
5-5. Disruption 5-2
5-6. Mass and Concentration 5-2
5-7. Flexibility 5-3
Section III. Sequence of the Defense 5-3
5-8. Reconnaissance and Security Operations and Enemy Preparatory Fires 5-3
5-9. Occupation and Preparation 5-4
5-10. Approach of the Enemy Main Attack 5-4
5-11. Enemy Assault 5-4
5-12. Counterattack 5-4
5-13. Consolidation and Reorganization 5-5
Section IV. Planning Considerations 5-5
5-14. Maneuver 5-5
5-15. Fire Support 5-7
5-16. Air Defense 5-8
5-17. Mobility, Countermobility, and Survivability 5-8
5-18. Combat Service Support 5-13
Section V. Preparation and Integration 5-13
5-19. Defensive Techniques 5-13
5-20. Sector Defense 5-14
5-21. Battle Position Defense 5-16
5-22. Strongpoint Defense 5-19
5-23. Perimeter Defense 5-21
5-24. Linear Defense 5-26
5-25. Nonlinear Defense 5-27
5-26. Reverse Slope Defense 5-28
5-27. Engagement Area Development 5-31
5-28. Priority of Work 5-38
5-29. Adjacent Unit Coordination 5-41
Section VI. Retrograde Operations 5-41
5-30. Delay 5-42
5-31. Planning 5-42
5-32. Delay Techniques 5-43
5-33. Withdrawal 5-45
5-34. Phases 5-46
5-35. Unassisted Withdrawal 5-46
5-36. Assisted Withdrawal 5-47
5-37. Retirement 5-48

CHAPTER 6. URBAN OPERATIONS
Section I. General Planning Considerations 6-1
6-1. Employment Considerations for Company-Size Combined-Arms Teams 6-1

Page
6-2. Employment of Infantry and MGS Vehicles 6-3
Section II. Offense 6-10
6-3. General Offensive Considerations 6-10
6-4. METT-TC Factors 6-11
6-5. Battle Command 6-16
6-6. Task Organization 6-18
6-7. Movement 6-20
6-8. Deliberate Attack 6-21
6-9. Isolate an Urban Objective 6-23
6-10. Assault a Building 6-25
6-11. Attack a Block or Group of Buildings 6-28
6-12. Consolidation and Reorganization 6-29
Section III. Defense 6-30
6-13. METT-TC Factors 6-30
6-14. Command and Control 6-40
6-15. Hasty Defense 6-42
6-16. Company Defense of a Village 6-43
6-17. Defense of a Block or Group of Buildings 6-45
6-18. Defense of Key Terrain 6-46
6-19. Defense of an Urban Strongpoint 6-48
6-20. Delay 6-50

CHAPTER 7. TACTICAL ENABLING OPERATIONS
Section I. Reconnaissance 7-1
7-1. Reconnaissance Planning 7-1
7-2. Reconnaissance Execution 7-1
7-3. Reconnaissance Before and After Operations 7-2
7-4. Reconnaissance during Operations 7-4
7-5. Forms of Reconnaissance 7-4
Section II. Linkup 7-5
7-6. Linkup Situations 7-5
7-7. Linkup Planning 7-5
7-8. Steps of the Linkup Operation 7-6
Section III. Security Operations 7-8
7-9. Forms of Security Operations 7-8
7-10. Planning Considerations 7-8
7-11. Screen 7-11
7-12. Guard 7-13
7-13. Local Security 7-17
Section IV. Vehicle Laager 7-18
7-14. Planning Considerations 7-18
7-15. Occupying Vehicle Laager Sites 7-19
Section V. Passage of Lines 7-19
7-16. Planning Considerations 7-20
7-17. Reconnaissance Coordination 7-20
7-18. Forward Passage of Lines 7-21

Page
7-19. Rearward Passage of Lines ... 7-22
Section VI. Breaching ... 7-23
7-20. Breaching Tenets ... 7-23
7-21. Types of Breaches ... 7-26
Section VII. Air Assault Operations ... 7-26
7-22. Planning Considerations ... 7-26
7-23. Reverse Planning Sequence ... 7-27

CHAPTER 8. STABILITY OPERATIONS
Section I. Planning Considerations ... 8-1
8-1. Rules of Engagement ... 8-1
8-2. Rules of Interaction ... 8-2
8-3. Force Protection ... 8-2
8-4. Task Organization ... 8-3
8-5. CSS Considerations ... 8-3
8-6. Media Considerations ... 8-4
8-7. Operations with Outside Agencies ... 8-4
Section II. Types of Operations ... 8-4
8-8. Peace Operations ... 8-4
8-9. Foreign Internal Defense ... 8-5
8-10. Security Assistance ... 8-5
8-11. Humanitarian and Civic Assistance ... 8-5
8-12. Support to Insurgency ... 8-5
8-13. Support to Counterdrug Operations ... 8-5
8-14. Combating Terrorism ... 8-6
8-15. Noncombatant Evacuation Operations ... 8-6
8-16. Arms Control ... 8-6
8-17. Show of Force Operations ... 8-6
Section III. Company Tasks ... 8-6
8-18. Establish and Occupy a Lodgment Area ... 8-6
8-19. Conduct Negotiations ... 8-9
8-20. Monitor Compliance with an Agreement ... 8-11
8-21. Establish Observation Posts ... 8-12
8-22. Establish Checkpoints ... 8-13
8-23. Conduct Patrol Operations ... 8-15
8-24. Conduct Convoy Escort ... 8-17
8-25. Open and Secure Routes ... 8-22
8-26. Conduct Reserve Operations ... 8-22

CHAPTER 9. SUPPORT OPERATIONS
Section I. Characteristics of Support Operations ... 9-1
9-1. Types of Support Operations ... 9-1
9-2. Domestic Support Operations ... 9-1
9-3. Foreign Humanitarian Assistance ... 9-2
Section II. Forms of Support Operations ... 9-2
9-4. Relief Operations ... 9-2

Page
9-5. Support to Domestic CBRNE Consequence Management 9-3
9-6. Support to Civil Law Enforcement 9-3
9-7. Community Assistance 9-3
Section III. Considerations for Support Operations 9-5
9-8. Provide Essential Support to the Largest Number of People 9-5
9-9. Coordinate Actions with Other Agencies 9-5
9-10. Establish Measures of Effectiveness 9-5
9-11. Hand Over to Civilian Agencies As Soon As Feasible 9-6
Section IV. Phases of Support Operations 9-6
9-12. Response Phase 9-6
9-13. Recovery Phase 9-6
9-14. Restoration Phase 9-7

CHAPTER 10. COMBAT SUPPORT OPERATIONS
Section I. Command and Support Relationships 10-1
10-1. Command Relationships 10-1
10-2. Support Relationships 10-1
Section II. Fires and Effects 10-2
10-3. Indirect Fire Capabilities 10-2
10-4. Fire Support Planning and Coordination 10-4
10-5. Maneuver Commander's Intent 10-10
10-6. Planning Process 10-10
10-7. Targets 10-16
10-8. Final Protective Fires 10-17
10-9. Special Munitions 10-17
10-10. Smoke Support 10-18
10-11. Observer Positions 10-18
10-12. Rehearsals and Execution 10-19
10-13. Communications 10-19
10-14. Quick Fire Channel 10-21
10-15. Indirect Fires in Close Support 10-21
10-16. Fire Support Team 10-22
10-17. Mortars 10-23
10-18. Mortar Positions 10-26
10-19. Mortar Employment 10-27
10-20. Mortar Displacement 10-27
10-21. Mortar Engagements 10-28
Section III. Engineers 10-30
10-22. Organization and Capabilities 10-30
10-23. Medium Engineer Company 10-31
10-24. Mobility 10-34
10-25. Countermobility 10-35
10-26. Survivability 10-41
Section IV. Air Defense Artillery 10-41
10-27. Systems, Organization, and Capabilities 10-41

Page
10-28. Employment of Air Defense Systems 10-42
10-29. Weapons Control Status 10-43
10-30. Early Warning Procedures 10-43
10-31. Reaction Procedures 10-43
Section V. NBC Support 10-45
10-32. Reconnaissance Support 10-45
10-33. Decontamination Support 10-46

CHAPTER 11. COMBAT SERVICE SUPPORT OPERATIONS
Section I. CSS Planning Considerations 11-1
11-1. General Guidelines 11-1
11-2. Company Responsibilities 11-2
Section II. Soldier's Load 11-4
11-3. Load Planning 11-5
11-4. Load Calculation 11-6
11-5. Load Management Techniques 11-7
Section III. Trains 11-8
11-6. SBCT Infantry Battalion Trains 11-8
11-7. SBCT Infantry Company Trains 11-8
11-8. Trains Security 11-9
11-9. Communications 11-9
Section IV. CSS in the SBCT 11-9
11-10. Brigade Support Battalion 11-10
11-11. S1 Section 11-11
11-12. Brigade Operational Law Team 11-11
11-13. Unit Ministry Team 11-11
11-14. Financial Management 11-11
11-15. Enemy Prisoners of War 11-12
Section V. Supply and Transportation Operations 11-12
11-16. Classes of Supply 11-12
11-17. Routine Supply 11-14
11-18. Emergency Resupply 11-17
11-19. Prestock Operations 11-17
11-20. Company Resupply Requirements 11-18
11-21. Company Resupply Techniques 11-18
11-22. Supply Considerations 11-19
11-23. Transportation 11-21
Section VI. Maintenance Operations 11-21
11-24. SBCT Maintenance Concept 11-21
11-25. Maintenance Requirements 11-21
11-26. Company Role 11-22
11-27. Destruction 11-22
Section VII. Health Service Support 11-23
11-28. Health and Hygiene. 11-23
11-29. Soldiers Wounded in Action 11-23
11-30. Casualty Evacuation 11-24

Page
11-31. Soldiers Killed in Action 11-28
Section VIII. Reorganization and Weapons Replacement 11-28
11-32. Replacement and Cross-Leveling of Personnel 11-29
11-33. Personnel Replacement Procedures 11-29
11-34. Replacement and Salvaging of Equipment 11-29
11-35. Weapons System Replacement Operations 11-29

APPENDIX A. JAVELIN EMPLOYMENT A-1
APPENDIX B. THE MGS PLATOON B-1
APPENDIX C. SNIPERS C-1
APPENDIX D. TLP-MDMP INTEGRATION D-1
APPENDIX E. RISK MANAGEMENT E-1
APPENDIX F. FRATRICIDE AVOIDANCE F-1
APPENDIX G. ROAD MARCHES AND ASSEMBLY AREAS G-1
APPENDIX H. DIRECT FIRE PLANNING AND CONTROL H-1
GLOSSARY Glossary-1
REFERENCES References-1
INDEX Index-1

PREFACE

This manual is based on the premise that although the unit organization, weapons systems, and conditions have changed, platoon maneuver, fire, and movement have not changed.

FM 3-21.11 describes the doctrinal and tactical employment principles for the Stryker brigade combat team (SBCT) infantry rifle company, which is an element of the SBCT battalion. This field manual responds to a need for emerging doctrine, tactics, and techniques for the infantry companies of the SBCT. The fundamental shift and focus for the manual is the combination of an infantry-centric organization, three full platoons, and a mobile gun system (MGS) platoon. This is a departure from the light and mechanized infantry concept.

This manual provides the company commander with tactics and techniques to exploit the infantry capabilities, to reduce vulnerabilities, and to enable the unit to win on the battlefield. This manual borrows from "nested" concepts found in FM 7-10 and FM 71-1 and reemphasizes information from other manuals that are of critical importance.

The proponent of this publication is the US Army Infantry School. Send comments and recommendations to doctrine@benning.army.mil or on DA Form 2028 directly to Commandant, US Army Infantry School, ATTN: ATSH-ATD, Fort Benning, Georgia 31905-5000.

Unless this manual states otherwise, masculine nouns and pronouns do not refer exclusively to men.

CHAPTER 1

OVERVIEW OF THE SBCT INFANTRY RIFLE COMPANY

The five types of infantry have historically been separated into two "schools of thought": light vs. mechanized. Both are extremely lethal in the terrain and missions for which they are best suited. Mechanized forces excel in terrain that supports rapid fire and maneuver while light forces excel in more restrictive terrain and accomplish their missions at the small-unit level. The overarching doctrine is the same across these two schools of thought; however, the tactics, techniques, capabilities, and limitations between light and mechanized infantry create a divergence. The Stryker brigade combat team (SBCT) infantry rifle company, as a part of the SBCT battalion, fills this gap. The SBCT can operate independently, or it can supplement light and mechanized forces.

Section I. INTRODUCTION

This manual addresses the doctrine of the SBCT at the company level. The SBCT infantry rifle company capitalizes on the strengths and minimizes the limitations of mechanized and light doctrine. The light infantry ethos is the foundation of this organization but is combined with the speed, mobility, and precision of mounted warfare. Success is achieved by integrating the complementary characteristics of each type of infantry where decisive action must occur.

1-1. CHARACTERISTICS OF THE SBCT INFANTRY RIFLE COMPANY

Because the fundamentals of fire and maneuver are unchanged, the majority of the combat power of the SBCT infantry rifle company lies in its highly trained squads and platoons. The organic vehicles in the platoons are for moving infantry to the fight swiftly and providing tactical flexibility while tailoring the soldiers' loads through a "mobile arms room" concept. There is also a mobile gun system (MGS) platoon that supports the infantry fight with long-range precision fires. The MGS is a *fighting vehicle* but is not a Bradley or a tank and should not be employed in the traditional sense of a fighting vehicle. Flexibility is the key to the rifle company. Current and predicted global situations dictate the need for a force that is rapidly deployable (within 96 hours), lethal, and flexible enough to address the full spectrum of Army operations.

1-2. OPERATIONAL PREMISE

The SBCT was developed to address some of the changing situations the US Army currently faces. At the brigade level, there are significant changes that affect the way this unit fights. Although the changes at brigade level do not significantly change tactics at company level and below, they do affect the frequency with which companies, platoons and squads execute certain missions.

1-3. CAPABILITIES AND LIMITATIONS OF THE SBCT FORCE

The SBCT infantry rifle company commander must understand the differences in the capabilities and limitations of this unit as compared to that of traditional infantry forces. The SBCT combines the tactical mobility aspect of mechanized units while emphasizing

and exploiting the infantry fight where decisive action occurs. Table 1-1 highlights the capabilities and limitations of the SBCT infantry rifle company.

CAPABILITIES	LIMITATIONS
• Conducts organic combined-arms assaults in complex environments. • Strategic deployability. • Smaller logistical footprint. • Increased combat power with 4 platoons per company and 4 squads per infantry platoon. • Increased tactical mobility for infantry. • Carries and employs assortment of weapons to the fight with a "mobile arms room" concept. • 120-mm and 60-mm mortars organic to company. • Information dominance. • Can operate routinely in nonlinear and contiguous environments. • Organic capability to coordinate both lethal and nonlethal effects. • Responsible for a much larger area of operations. • Self-sustained operations for 72 hours.	• Vulnerable to indirect fires while dismounted. • Reduced overmatch capability. • Increased requirement for augmentation in a major theater war. • Reduced sustainability in forward units. • Reduced company logistical systems. • No organic maintenance sections. • Not an initial entry force. • Vulnerable to nuclear, biological, chemical (NBC) attack.

Table 1-1. Capabilities and limitations of the SBCT infantry rifle company.

Section II. ORGANIZATION

The SBCT is capable of fighting combined-arms operations down to company level. This creates the necessary combat power and flexibility needed in complex environments.

1-4. BRIGADE ORGANIZATION

The SBCT is an infantry-centric, full spectrum, early entry combat force pre-configured in ready-to-fight combined-arms packages (Figure 1-1). The design includes embedded unit-based capabilities such as military intelligence (MI), signal, engineer, antitank, artillery, and combat service support (CSS) elements. This organization allows the SBCT to fight using combined arms down to company level. The following are key organic assets that allow the brigade commander to conduct shaping and decisive operations more effectively:

- Brigade headquarters and headquarters company (HHC).
- Infantry battalion (x3).
- Reconnaissance, surveillance, and target acquisition (RSTA) squadron.
- Antitank company.
- Artillery battalion.

- Medium engineer company.
- Military intelligence company.
- Signal company.
- Brigade support battalion.

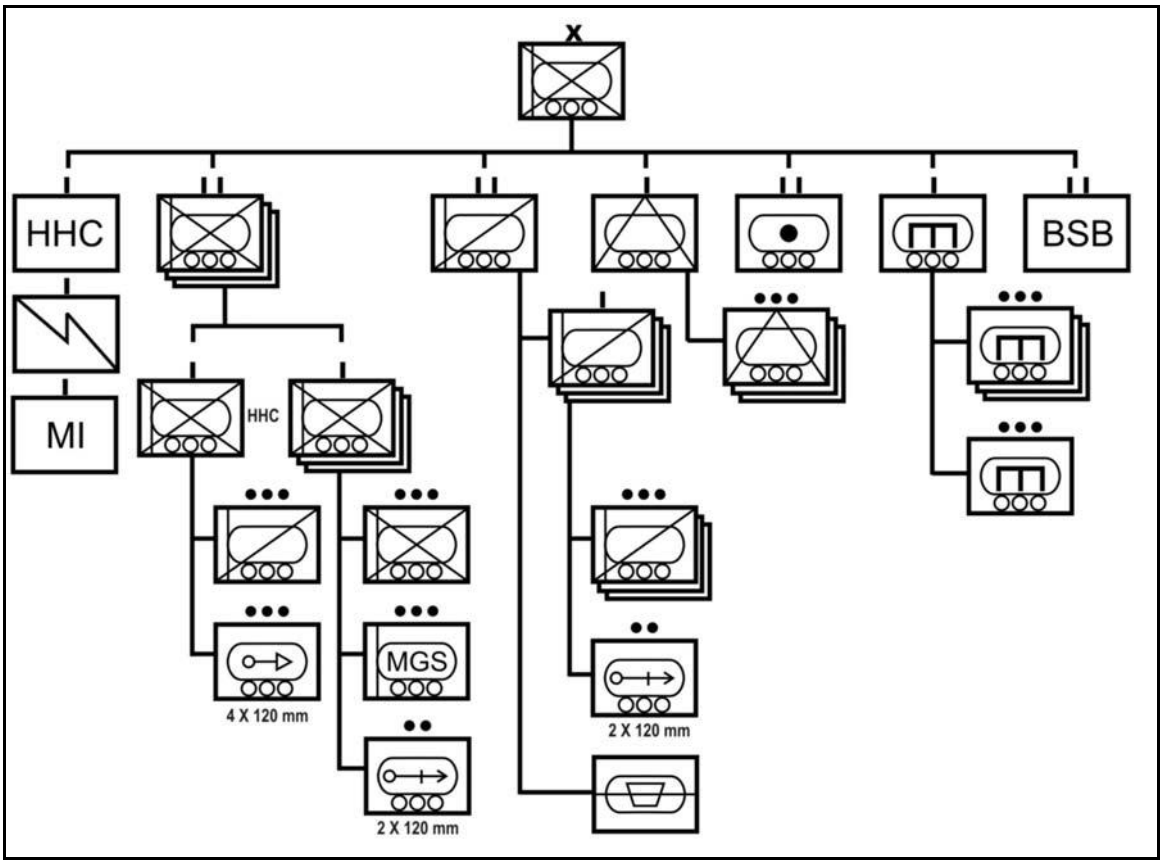


Figure 1-1. SBCT organization.

1-5. SBCT INFANTRY BATTALION ORGANIZATION

The SBCT infantry battalion (Figure 1-2, page 1-4) consists of three rifle companies and an HHC. The HHC provides support to the battalion commander and the staff and controls the battalion's reconnaissance platoon, mortar platoon, medical platoon, communication section, and sniper squad.

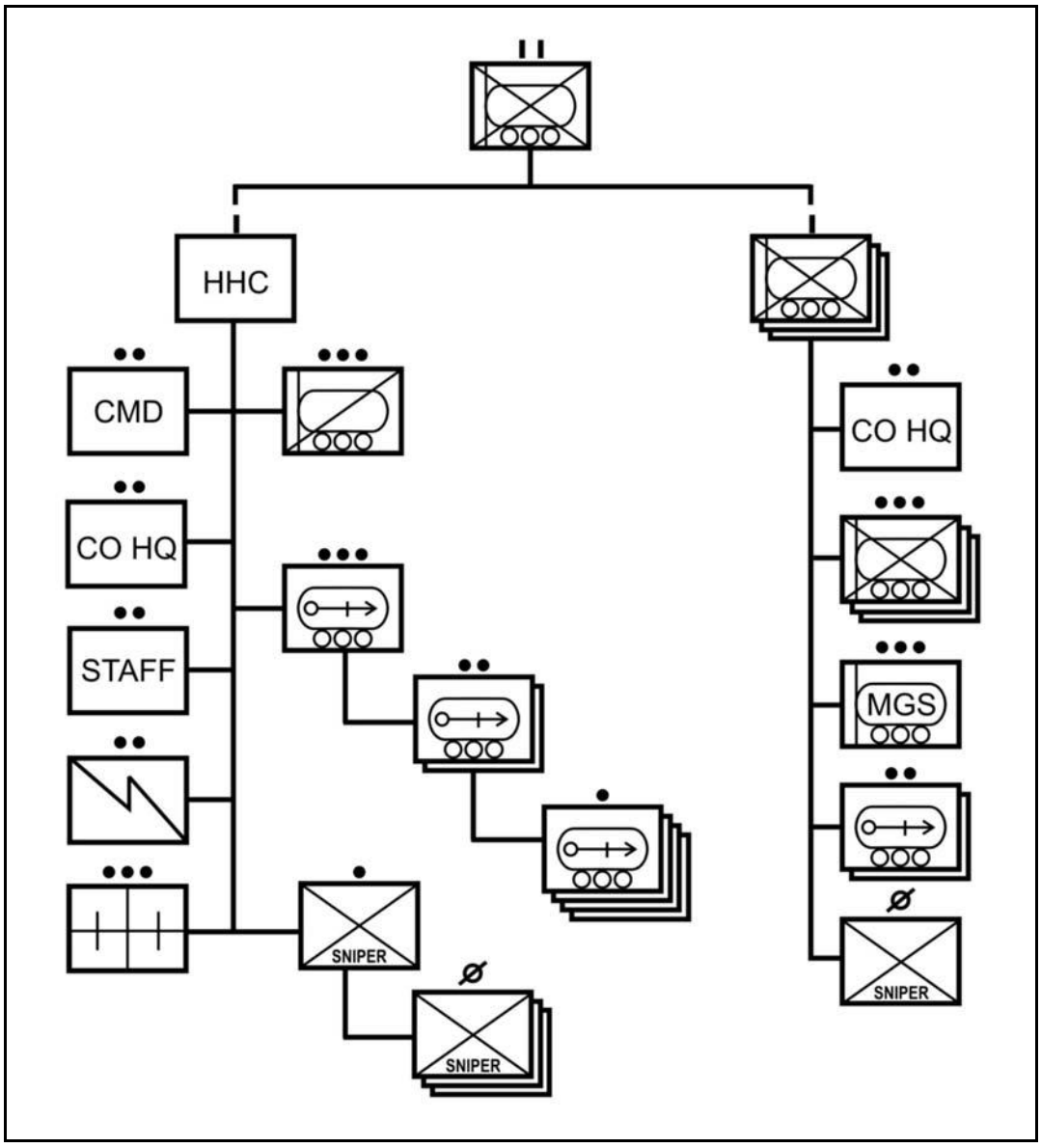


Figure 1-2. SBCT infantry battalion organization.

1-6. COMPANY ORGANIZATION

Figure 1-3, page 1-6, illustrates the organization of the SBCT infantry rifle company. The company headquarters section provides command, control, and supervision of all organic and attached elements. The company headquarters consists of the company commander, executive officer (XO), first sergeant (1SG), company supply and nuclear, biological, and chemical (NBC) personnel, infantry carrier vehicle (ICV) crews for the company commander (CO) and XO, and the company commander's radiotelephone operators (RATELOs). The company headquarters includes the following personnel and equipment:

- Two ICVs, each with a driver and a vehicle commander (VC), commanded by the CO and the XO.
- Two high-mobility, multiwheeled vehicles (HMMWVs) with trailers, which are under the control of the 1SG. The NBC noncommissioned officer (NCO) and the communications specialist operate these vehicles.
- Two trucks with trailers, which are under the control of the supply sergeant. The supply specialists drive these vehicles.

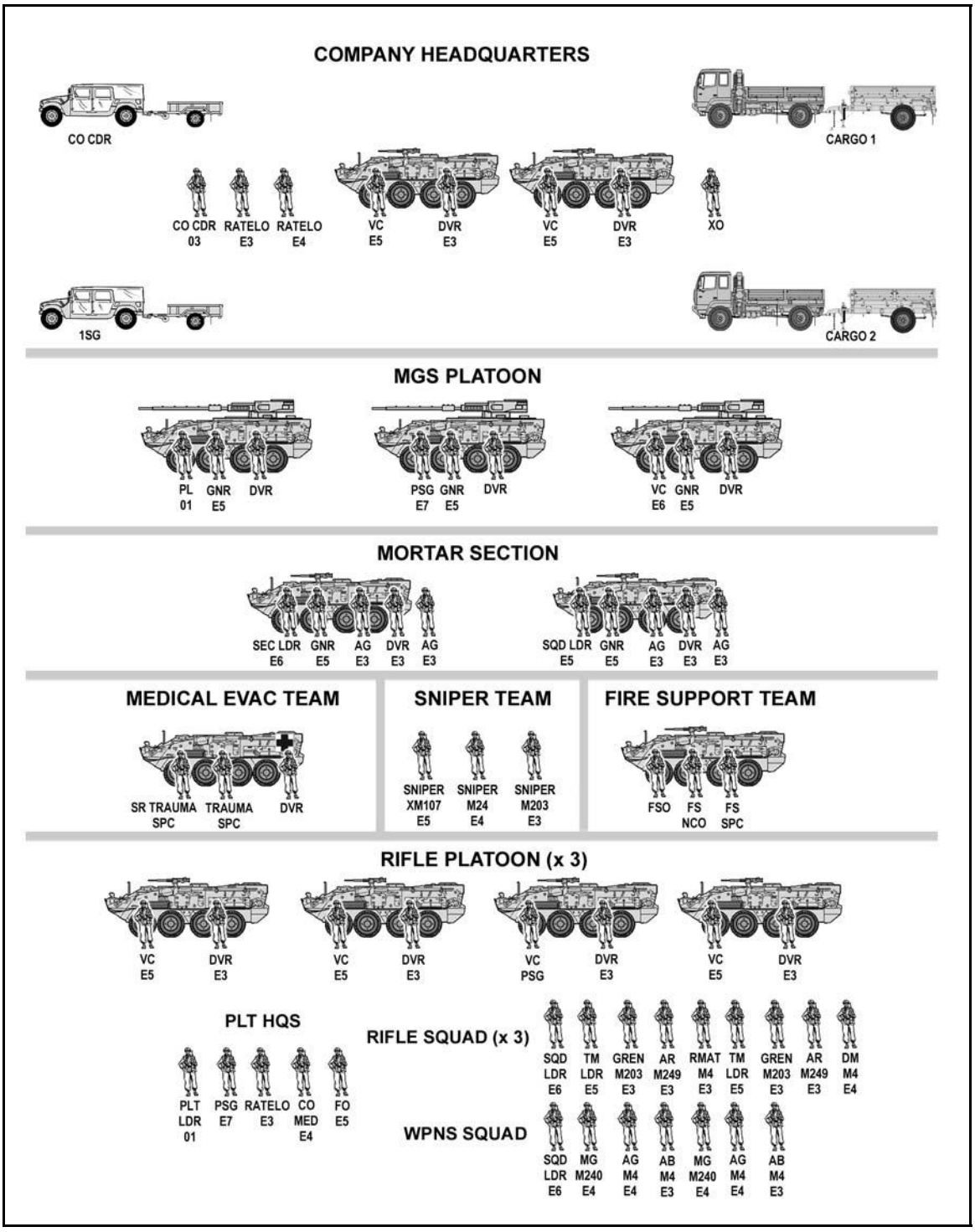


Figure 1-3. SBCT infantry rifle company organization.

1-7. SBCT INFANTRY RIFLE PLATOON

Figure 1-4 illustrates the organization of the SBCT infantry rifle platoon. The platoon includes the following personnel and equipment:

- Platoon headquarters, which includes platoon leader (PL), platoon sergeant (PSG), RATELO, forward observer (FO), and platoon medic (attached).
- Four ICVs, each with driver and vehicle commander. The PL and PSG are the vehicle commanders of two of the ICVs while the platoon is mounted.
- Three 9-man squads of infantry with antitank assets (Javelin).
- One 7-man weapons squad.

The SBCT infantry platoon has one officer and 44 enlisted personnel in three elements: the platoon headquarters, the mounted element, and the infantry squads.

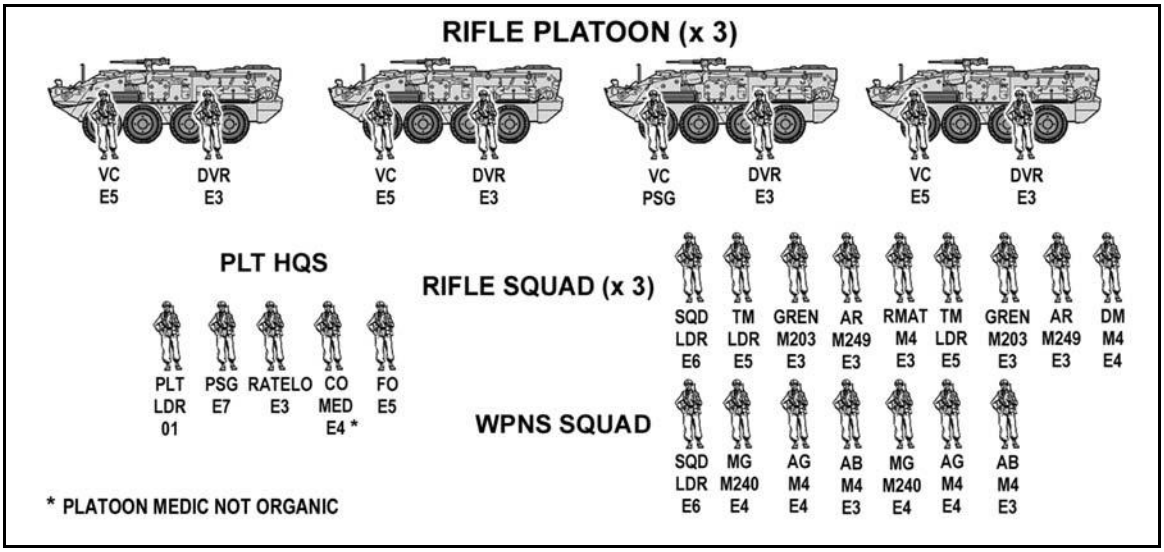


Figure 1-4. SBCT infantry rifle platoon organization.

a. **Rifle Platoon Headquarters.** The platoon headquarters (Figure 1-5, page 1-8) consists of the rifle platoon leader, platoon sergeant, FO, and RATELO. In tactical situations, it also includes the platoon medic. The platoon leader is responsible for the employment of the platoon and all the platoon's systems. The platoon sergeant is the most senior NCO in the platoon. He is second in succession of command and leads the platoon's mounted element when the platoon leader dismounts with the infantry squads. He assists and advises the platoon leader, and he leads the platoon in the platoon leader's absence. The decision as to whether the PSG will participate as part of the dismounted element or mounted element will always be based on the factors of mission, enemy, terrain, troops, time available, and civil considerations (METT-TC).

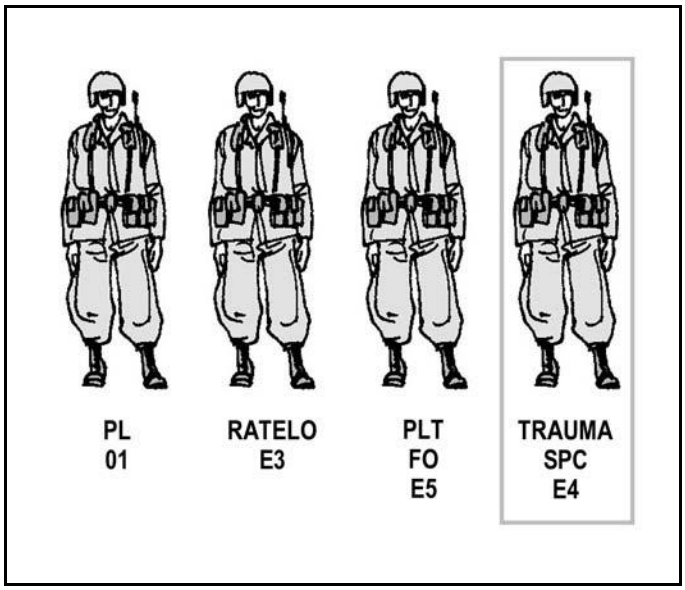


Figure 1-5. Rifle platoon headquarters.

b. **Mounted Element.** The infantry rifle platoon is equipped with four ICVs that provide rapid, protected tactical and operational mobility of infantry squads to critical locations on the battlefield (Figure 1-6). The ICV is a fully mobile system capable of operating in conjunction with infantry and other elements of the combined-arms team. Each ICV has a crew of two (VC and driver) that operates the vehicle. These mounted crews provide critical support to the platoon by operating and maintaining the ICVs and properly employing them on the battlefield to ensure protected delivery of the infantry squads to their dismount point. Once the infantry squads have dismounted the ICVs, the vehicle crew may employ local defensive armament to defeat "thin-skinned" enemy vehicles (trucks or lightly armored vehicles) or dismounted infantry.

(1) The VC is responsible for the overall employment of the ICV and operates the ICV's defensive armament. The vehicle driver operates the vehicle during all conditions--day or night. At the VC's direction, the driver negotiates the vehicle through all terrain and obstacles to deliver the infantry squad safely to the point of employment on the battlefield.

(2) As previously stated, the ICV's local defensive armament is capable of defeating "thin-skinned" enemy vehicles (trucks or lightly armored vehicles) and dismounted infantry. ICV crews may employ these weapons to augment the base of fire provided by the platoon's weapons squad. These augmenting direct fires can ensure the infantry squad's freedom of maneuver to close with and destroy the enemy. These fires can also provide accurate suppressive fires on enemy personnel, bunkers, or emplacements and destroy enemy infantry in daylight, at night, or during conditions of limited visibility (smoke, haze, and fog).

(3) The platoon's ICVs and infantry soldiers provide mutual protection for each other while performing their assigned missions. Infantry soldiers provide security for the vehicles while halted, and the ICVs provide rapid, protected battlefield mobility and an augmenting base of fire capability for the dismounted infantry assault.

(4) While the platoon remains mounted, the platoon leader controls the movement of the platoon's ICVs. When the platoon leader dismounts to conduct the assault or other dismounted infantry operations with the infantry squads, the platoon sergeant normally assumes control of the mounted element of the platoon. He maneuvers them in support of the infantry squads and as directed by the platoon leader. For example, if the direct fires of the ICVs are needed to facilitate the maneuver of the squads, the platoon leader may decide to have the platoon sergeant direct the fires of the mounted element to facilitate the platoon's maneuver. The platoon sergeant also can dismount with the rest of the platoon, if required.

(5) The platoon fights as a team. It must be prepared to maneuver in restricted terrain supported by the weapons squad and, when possible, the ICVs and MGS. When the platoon conducts dismounted operations, it has three 9-man rifle squads and a 7-man weapons squad. The key advantage here is that, with the added support of the weapons squad, the infantry no longer has to stay within range of ICV direct fire support. In this case, the ICVs could overwatch, block another avenue of approach, isolate the objective, or conduct other missions.

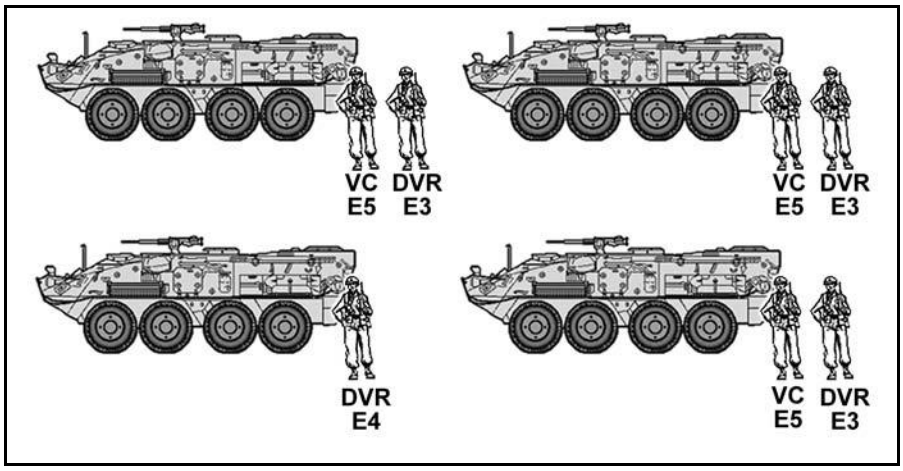


Figure 1-6. Mounted element.

c. **Infantry Squads.** The infantry rifle platoon has three 9-man rifle squads and one 7-man weapons squad. These squads are at the center of the SBCT infantry rifle platoon concept.

(1) ***Rifle Squads.*** Each of the three rifle squads (Figure 1-7, page 1-10) consists of a rifle squad leader and eight soldiers. The rifle squad leader is the senior tactical leader of the squad and controls the squad's movement and fires. He conducts squad training and maintains the squad's ability to conduct tactical missions successfully. Each infantry squad is further organized into two 4-man fire teams consisting of a team leader, a grenadier, and an automatic rifleman. The fourth member within each fire team is either the squad's antiarmor specialist or the squad's designated marksman (DM). The fire team leader is a fighting leader who leads his team by example. He is equipped with an M4 rifle. The fire team leader controls the movement of his team and the placement of fires against enemy soldiers. He assists the squad leader as required.

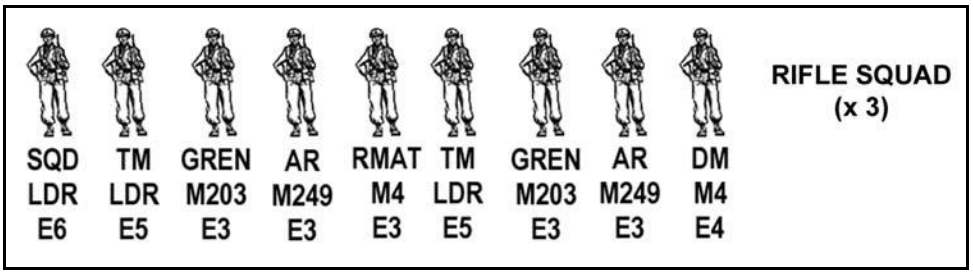


Figure 1-7. Rifle squad.

(a) *Squad Antiarmor Specialist*. Although normally functioning as a rifleman within one of the fire teams in a rifle squad, the squad antiarmor specialist is also capable of defeating heavy armor in any tactical environment. He is equipped with the Javelin missile system, which provides the squad, platoon, and company with an extremely lethal, fire-and-forget, man-portable, top-attack antiarmor capability to defeat threat main battle tanks during day, night, and adverse weather conditions at ranges up to 2,000 meters. The command launch unit (CLU) for the Javelin missile is transported in the squad's ICV. If required, the squad antiarmor specialist destroys enemy armor threats that may impede the squad and platoon's ability to accomplish their mission. See Appendix A for a discussion of Javelin employment.

(b) *Squad Designated Marksman.* Although normally functioning as a rifleman within one of the fire teams in a rifle squad, the squad designated marksman is also armed with the M24 7.62-mm sniper rifle. He is employed at the direction of the squad leader or reorganized with the other squad marksmen into a platoon sniper section. The designated marksman can defeat high-value enemy personnel targets, such as automatic rifle teams, antiarmor teams, and snipers, at ranges out to 800 meters.

(2) ***Weapons Squad.*** The seven-man weapons squad (Figure 1-8) consists of a squad leader and two 3-man machine-gun teams. The weapons squad provides the primary base of fire for the maneuver of the platoon's rifle squads with highly accurate short- and long-range, direct and small-arms fires against enemy personnel and equipment. Each of the two machine-gun teams consists of the gunner, assistant gunner, and ammunition bearer. Each team has an M240B 7.62-mm medium machine gun, which has an effective range of over 800 meters.

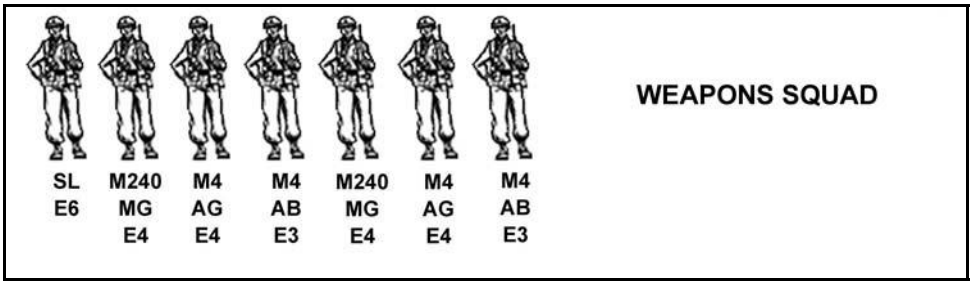


Figure 1-8. Weapons squad.

1-8. MOBILE GUN SYSTEM PLATOON

Figure 1-9 illustrates the organization of the MGS platoon. The platoon includes three MGS vehicles, each with a crew of three: VC, gunner, and driver. The platoon leader and

platoon sergeant are the VCs for two of the MGS vehicles. (Appendix B of this manual details the MGS platoon and its employment considerations.)

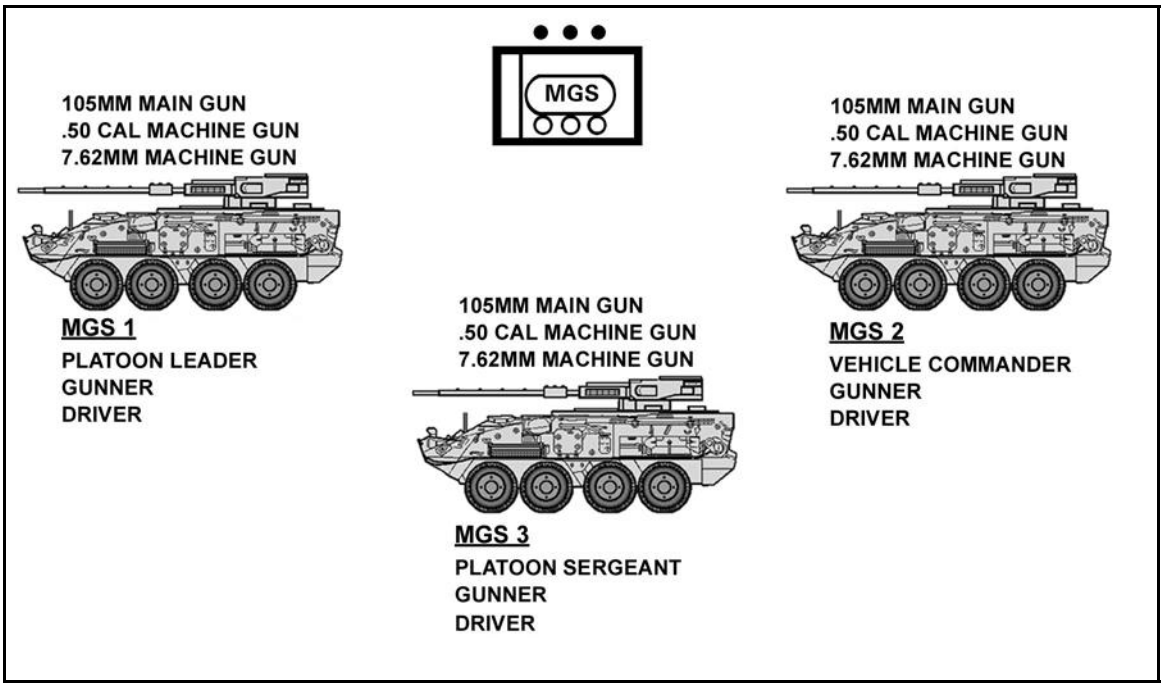


Figure 1-9. MGS platoon organization.

1-9. SNIPER TEAM

The SBCT infantry company employs snipers as a three-man team, consisting of a sniper, an observer, and one man who secures the team (Figure 1-10, page 1-12). The senior man in the team is the observer, the next most senior is the sniper, and the junior man secures the sniper team. The team is capable of providing the company with a full range of sniper support and is equipped with both the M24 7.62-mm sniper rifle (providing antipersonnel fires out to 800 meters) and the .50-caliber XM107 sniper rifle (providing antipersonnel and antiequipment fires beyond 800 meters). This "arms room" concept allows the sniper team to employ the sniper system that best supports the mission parameters. Additionally, the third member of the sniper team is equipped with an M203 rifle system to provide protection and security for the sniper and his spotter as well as a means to break contact if the team is compromised. The sniper team is employed to support maneuver, to kill essential enemy leadership or command personnel, to disable lightly armored or "thin skinned" vehicles, to enhance force protection, to provide lethal accurate fires in urban operations, and to perform the counter-sniper role. Refer to Appendix C for a detailed discussion of Sniper employment.

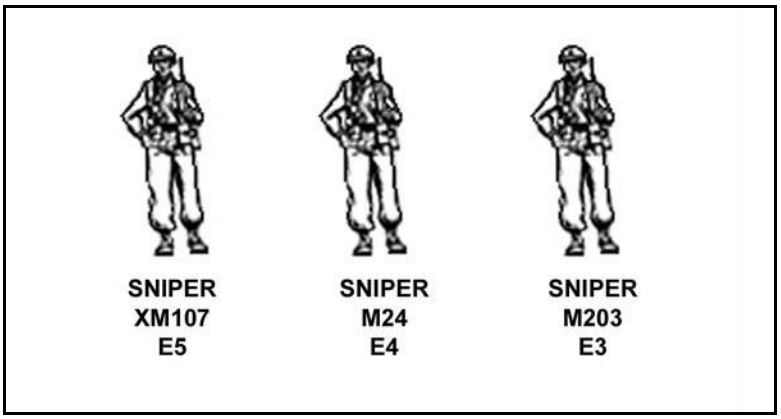


Figure 1-10. Sniper team organization.

1-10. SBCT COMBAT SUPPORT ASSETS

The company has an organic mortar section and fire support team. The company also may be task-organized with additional combat support (CS) elements.

a. **Mortar Section.** The mortar section is the rifle company's primary indirect fire support element. The section consists of ten soldiers organized in two mortar crews; each crew is equipped with a 120-mm mortar mounted on a specially equipped mortar carrier (MC) (Figure 1-11). The MC allows for rapid and flexible delivery of indirect fires and increased responsiveness through rapid maneuver in support of company operations. Each crew is also equipped with a 60-mm mortar, which enables the section to provide a more lightweight dismounted mortar system to meet the requirements of a traditional light infantry mission (such as infiltration). With the exception of having two mortar systems rather than four, the mortar section provides the company commander with the same indirect fire capabilities that the battalion mortar platoon provides to the battalion commander. The man-portable nature of the mortar systems gives the company commander a flexible and robust indirect fire capability. Due to crew limitations, only one system (60-mm or 120-mm) can be employed at a given time.

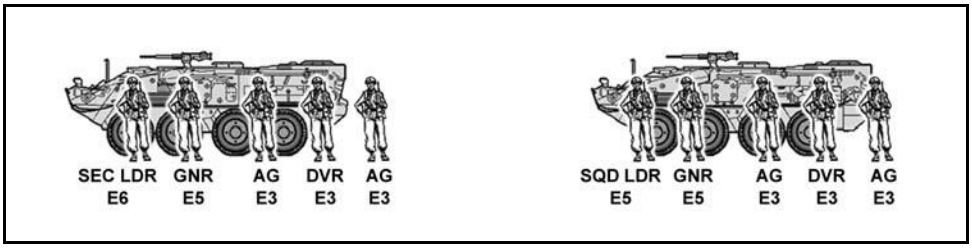


Figure 1-11. Mortar section organization.

b. **Fire Support Team.** The fire support team (FIST) (Figure 1-12) consists of the fire support officer (FSO), the fire support (FS) NCO, and one fire support specialist. It is equipped with the fire support vehicle (FSV) and has the Striker to provide a combat laser designation capability for delivery of precision artillery or aerial-delivered munitions. The FIST assists the company commander in planning, integrating, coordinating, and executing all types of available supporting fires during tactical

operations. The FIST is the commander's primary fire support coordinator and provides the commander a direct link to battalion indirect fire support systems.

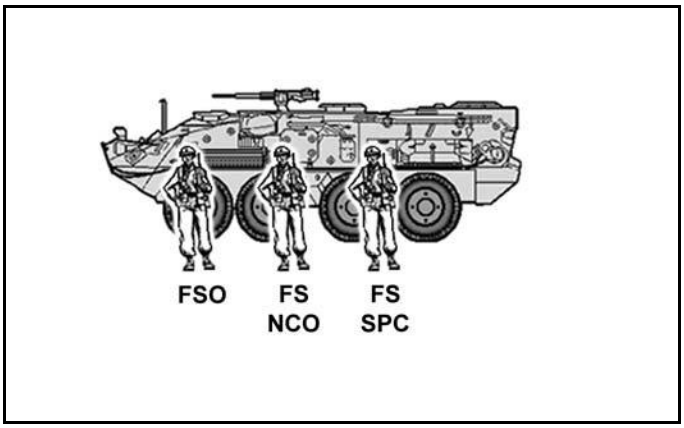


Figure 1-12. Fire support team.

c. **Other Elements.** Additional CS elements that may be task organized to the company include--

- Engineer assets, such as an engineer squad, special equipment, or both.
- A Stinger team, which rides on a dedicated vehicle. Air defense artillery (ADA) assets are attached from a divisional direct-support ADA battalion, if needed.
- An SBCT battalion reconnaissance squad.
- An SBCT battalion mortar section (during some tactical operations).
- Sensor teams (during some security operations), such as those using ground surveillance radar (GSR) or the improved remotely monitored battlefield sensor system (IREMBASS).
- Counterintelligence, civil affairs, and linguistic support teams (during stability operations or support operations).
- Unmanned aerial vehicle (UAV) assets may be provided from the SBCT, based on METT-TC considerations.

1-11. SBCT COMBAT SERVICE SUPPORT ASSETS

SBCT combat service support assets consist of a company medical team and a medical evacuation team attached from the SBCT battalion HHC.

a. **Company Medical Team.** The company medical team consists of a senior company medic and three platoon medics attached from the battalion's medical platoon. They ensure that the company is physically capable of conducting tactical operations. The company medic advises the commander on the medical readiness of his soldiers, assists the commander with planning and executing company and platoon medical training, supervises the three platoon medics, and supervises monitoring of the health and hygiene of company personnel. During tactical operations, the company medic organizes and coordinates casualty treatment and evacuation operations.

b. **Medical Evacuation Team.** A medical evacuation team (Figure 1-13, page 1-14) with a medical evacuation vehicle (MEV) from the battalion medical platoon is normally

placed in direct support (DS) of the SBCT infantry company. This team has a senior trauma specialist (vehicle commander), a trauma specialist, and a driver. When in DS of the SBCT infantry rifle company, the ambulance crew assists the company medical personnel with treatment and medical evacuations of ill, injured, or wounded company personnel. While in DS of the company, the ambulance team is directed by the company 1SG and senior company medic. If required, the ambulance team provides medical evacuation of company personnel from platoon and company casualty collection points (CCP) to a supporting treatment team or to the battalion aid station (BAS).

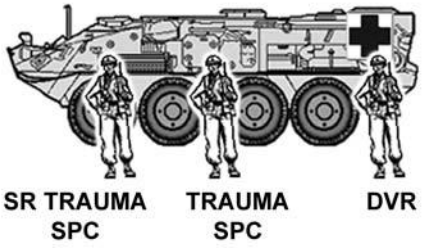


Figure 1-13. Medical evacuation team.

Section III. DUTIES AND RESPONSIBILITIES OF KEY PERSONNEL

This section describes the duties and responsibilities of key personnel in the SBCT infantry company.

1-12. COMPANY COMMANDER

The company commander is responsible for everything the company does or fails to do. This includes the tactical employment, training, administration, personnel management, maintenance, and sustainment of his company. He must know the capabilities of his men and supporting weapons and how to tactically employ them. He must also know the capabilities of the enemy.

a. The company commander exercises command through his subordinate leaders.

b. The commander employs his company to support the accomplishment of the battalion and SBCT missions. He requests additional support from the battalion when required.

1-13. EXECUTIVE OFFICER

The executive officer is second in command. His primary role is to oversee the management, collation, and processing of digitized information and to assist the commander in mission planning and accomplishment. He assumes command of the company as required and ensures that tactical reports from the platoons are forwarded to the battalion tactical operations center (TOC). The XO locates where he can maintain communications with the company commander and the battalion.

a. The XO is the company's primary facilitator for the flow of digitized information.

b. Before the battle, the XO (with the first sergeant) plans and supervises the company's CSS. They ensure precombat inspections are complete. The XO plans and

coordinates logistical support with agencies outside the company while the first sergeant does the same internally. He prepares or assists in the preparation of paragraph 4 of the company operations order (OPORD). He may also assist the company commander in planning the mission.

c. The XO coordinates with higher, adjacent, and supporting units. He may aid in control of certain significant steps of the battle such as a passage of lines, bridging a gap, or breaching an obstacle, or he may assume control of a platoon attached to the company during movement.

d. The XO may be assigned tactical responsibilities such as the following:

(1) ***Landing or Pickup Zone Control Officer.*** This may include straggler control, casualty evacuation, resupply operations, or air/ground liaison.

(2) ***Quartering Party or Detachment Officer in Charge.*** The XO may be the officer in charge (OIC) of an element consisting of representatives of various company elements. Their purpose is to precede the company and reconnoiter, secure, and mark an assembly area, or they remain behind the company to move or secure excess equipment and personnel while the company moves to a new location or conducts combat operations.

(3) ***Element Leader.*** The XO may be assigned a mission and a task-organized element with which to accomplish it. He may, for instance, control all the company machine guns, the mortar section, and one rifle platoon as the support force leader in a company raid or attack. Common missions of this nature include--

- Lead the reserve.
- Lead the detachment left in contact (DLIC) during a withdrawal.
- Control attachments to the company.
- Serve as movement control officer.

1-14. FIRST SERGEANT

The first sergeant is the senior NCO and normally the most experienced soldier in the company. He is the commander's primary tactical advisor and the expert on individual and NCO skills. He assists the commander in planning, coordinating, and supervising all activities that support the unit mission. He operates where the commander directs or where his duties require him. His specific duties include the following.

a. He executes and supervises routine operations. This includes enforcing the tactical standing operating procedure (SOP), planning and coordinating training, coordinating and reporting personnel and administrative actions, and supervising supply, maintenance, communications, field hygiene, and medical evacuation operations.

b. He supervises, inspects, or observes matters designated by the commander. (For example, he observes and reports on a portion of the company's sector or zone, inspects the mortar section, or inspects all range cards.)

c. He assists and coordinates with the XO and is prepared to assume the XO’s duties.

d. The 1SG leads task-organized elements or subunits on designated missions, if required.

1-15. PLATOON LEADER

The platoon leader is responsible to the commander for leadership, discipline, training, and sustainment activities related to the platoon and for the platoon's success in combat. He is also responsible for maintenance and accountability of platoon equipment.

a. He must be proficient in the tactical employment of the platoon and his section (mounted or dismounted) in concert with the rest of the company.

b. He must have a solid understanding of troop-leading procedures and develop his ability to apply them quickly and efficiently.

c. He must know the capabilities and limitations of the platoon's personnel and equipment and be well versed in enemy organizations, doctrine, and equipment.

d. He must possess the ability to make rapid decisions accurately based on the commander's intent and specifics of the tactical situation.

1-16. PLATOON SERGEANT

The platoon sergeant is the platoon's second in command and is accountable to the platoon leader for the leadership, discipline, training, and welfare of the platoon's soldiers.

a. He coordinates the platoon's maintenance and logistical requirements and handles the personal needs of individual soldiers.

b. He remains with the mounted element when the platoon dismounts, or he can dismount with the platoon as required by METT-TC considerations.

1-17. FIRE SUPPORT OFFICER

The fire support officer helps plan, coordinate, and execute the company's fire support. During planning, he develops a fire support plan based on the company commander's concept and guidance. He coordinates the fire support plan with the battalion FSO.

a. During planning, the FSO's duties include--

- Advising the commander of the capabilities and current status of all available fire support assets.
- Assisting the commander in developing the OPORD to ensure full integration of fires into his concept.
- Designating targets and fire control measures and determining method of engagement and responsibility for firing the targets.
- Determining the specific tasks and instructions required to conduct and control the fire plan.

b. The FSO briefs the fire support plan as part of the company OPORD and coordinates with PLs to ensure they understand their fire support responsibilities.

c. The FSO integrates platoon targets into the company target overlay and target worksheet. He then sends these products to the battalion fire support element (FSE).

d. During the battle, the FSO normally locates near the commander. This allows greater flexibility in conducting or adjusting the fire support plan. At times, the FSO may locate away from the commander to control supporting fires more effectively. The FSO informs the commander of key information on his radio net.

e. The FSO must understand infantry tactics. This knowledge allows the FSO to provide better fires integration and, if the company commander becomes a casualty,

allows him to assume temporary control of the company until the XO can assume command.

f. The FSO may coordinate close air support (CAS), or he may employ and control the company mortar section.

g. The FSO ensures the indirect fire plan is part of each company rehearsal.

1-18. COMMUNICATIONS SPECIALIST

The communications specialist supervises operation, maintenance, and installation of digital communications equipment, organic wire, and FM communications. This includes sending and receiving routine traffic and making required communication checks.

a. He supervises the company command post (CP) to include relaying information, monitoring the tactical situation, establishing the CP security plan and radio watch schedule, and informing the commander and subordinate units of significant events.

b. He performs limited troubleshooting of organic communications equipment and provides the link between the company and the battalion for communications equipment maintenance.

c. He supervises all aspects of communications security (COMSEC) equipment, to include requesting, receipting, maintaining, securing, employing, and training for COMSEC equipment and related materials.

d. He advises the company commander in planning and employing the communications systems. Based on the commander's guidance, he prepares or assists in preparing paragraph 5 of the OPORD.

e. He is responsible for fielding new information systems digitization equipment and the employment of the tactical internet (TI).

1-19. RADIOTELEPHONE OPERATOR

The radiotelephone operator operates and performs maintenance on his assigned radio to include preparation for special operations (cold weather, air assault, or waterborne) and the construction of field-expedient antennas.

a. He must understand the company mission. In the event the commander becomes a casualty, the RATELO may be the only man on the radio for a time. If so, he must be prepared to call for and adjust artillery or to request medical evacuation or resupply.

b. He may assist in OPORD preparation by copying overlays and building a sand table.

1-20. SUPPLY SERGEANT

The supply sergeant requests, receives, issues, stores, maintains, and turns in supplies and equipment for the company. He coordinates requirements with the 1SG and the battalion S4.

a. The HHC commander supervises the supply sergeant when he is located in the battalion field trains. He uses the battalion administrative/logistical (A/L) radio network or their Force XXI battle command brigade and below (FBCB2) net to communicate with the company.

b. The supply sergeant controls the supply trucks that are organic to the company.

c. The supply sergeant monitors the tactical situation and anticipates logistical requirements. (Chapter 11 has a more detailed discussion of the CSS requirements.)

1-21. NUCLEAR, CHEMICAL, AND BIOLOGICAL NCO

The nuclear, chemical, and biological NCO assists and advises the company commander in planning NBC operations. He conducts and supervises NBC training within the company (decontamination, monitoring, survey, and equipment maintenance operations) and inspects detection and protective equipment for serviceability.

a. He uses digital systems to gain situational understanding quickly.

b. He operates forward with the company CP and assists the communications specialist with CP operations and security.

c. His specific duties include the following:

- Recommends mission-oriented protective posture (MOPP) levels to the commander (based on guidance from the battalion NBC NCO and the current situation).
- Conducts continuous NBC vulnerability analysis.
- Ensures connectivity with the joint warning and reporting network (JWARN).
- Acts as liaison with supporting chemical units.
- Reports, analyzes, and disseminates NBC attack data manually or digitally using the NBC warning and reporting system (NBCWRS), and NBC1, NBC4, and spot reports from the FBCB2 system.
- Plans and supervises decontamination and monitoring/survey operations.
- Requisitions NBC equipment and supplies.

1-22. MORTAR SECTION LEADER

The mortar section leader is responsible for employing the mortar section and ensures effective mortar support for the company.

a. He assists the company commander in planning the employment of the mortar section.

b. He coordinates with the company FSO and FIST.

c. He controls the section during tactical operations.

d. He is the primary trainer for mortar systems.

1-23. SNIPER TEAM LEADER

The sniper team leader is responsible for employing the sniper team and ensures effective sniper support for the company.

a. He assists the company commander in planning the employment of the sniper team.

b. He coordinates with the company FSO and FIST.

c. He controls the team during tactical operations.

d. He is the primary trainer for the sniper team.

e. He is the primary observer of the sniper team.

1-24. ARMORER/SUPPLY SPECIALIST

The armorer/supply specialist performs organizational maintenance and repairs on the company's small arms weapons. He evacuates weapons to the DS maintenance unit, if required. Normally, he assists the supply sergeant in the brigade support area (BSA), but he may operate forward with the company CP to support continuous CP operations.

1-25. COMPANY MEDIC

The senior trauma specialist/ senior company medic is attached to the rifle company to provide emergency medical treatment (EMT) for sick, injured, or wounded company personnel. Emergency medical treatment procedures performed by the trauma specialist may include opening an airway, starting intravenous fluids, controlling hemorrhage, preventing or treating for shock, splinting fractures or suspected fractures, and providing relief for pain. The EMT performed by the trauma specialist is under the supervision of the battalion surgeon or physician's assistant (PA). The senior trauma specialist/company medic is responsible for--

- Overseeing and providing guidance to each platoon medic as required.
- Triaging injured, wounded, or ill friendly and enemy personnel for priority of teatment as they arrive at the company CCP.
- Overseeing sick call screening for the company.
- Requesting and coordinating the evacuation of sick, injured, or wounded personnel under the direction of the company 1SG.
- Assisting in the training of the company personnel on first aid and combat lifesavers in enhanced first-aid procedures.
- Requisitioning Class VIII supplies from the BAS for the company according to the TSOP.
- Recommending locations for company CCPs.
- Providing guidance to the company's combat lifesavers as required.
- Monitoring the tactical situation and anticipating and coordinating health service support (HSS) requirement and Class VIII resupply as necessary.
- Advising the company commander and 1SG on mass casualty operations.
- Keeping the 1SG informed on the status of casualties and coordinating with him for additional HSS requirements.

Section IV. BATTLEFIELD OPERATING SYSTEMS

The battlefield operating systems (BOSs) provide a means of reviewing preparations or execution in discrete subsets. Critical to this review is the synchronization and coordination of activities not only within a BOS but also among the various BOSs.

1-26. COMMAND AND CONTROL

The command and control process is the commander’s basic tool in the employment of the company. It consists of the activities and procedures used by the commander to plan, direct, coordinate, and control the functions and actions of the company; it also includes the personnel and equipment that assist him with command and control.

a. The commander employs the company in accordance with the guidance and orders he receives from the SBCT battalion. Perhaps his most important skills are his ability to accurately analyze the situation and develop a plan that has the greatest chance of accomplishing the mission with the least cost in lives and equipment. After developing the plan, the commander delegates authority to his subordinates, clearly assigning responsibilities, tasks, and purposes and stating his intent so that every member of the unit can effectively use responsible initiative.

b. Critical to the commander's ability to command and control is employment of digitized communications. The tactical internet--composed of the FBCB2 system,

enhanced position and location reporting system (EPLRS), and single-channel ground and airborne radio system (SINCGARS)--passes data between company elements. This digital traffic allows dissemination of graphics, orders, and tactical enemy and friendly information to squad level.

1-27. INTELLIGENCE

The intelligence operating system covers activities employed to see the enemy, terrain, and other aspects of battle space that affect friendly operations. Although the company's primary mission is to fight, it normally conducts some type of reconnaissance or surveillance prior to any operation, and it conducts reconnaissance during execution of all operations. Both before and during an operation, the company receives intelligence and combat information from its parent headquarters, from other companies, and from elements within the company. At the same time, the company is a critical source of combat information throughout the operation.

1-28. MANEUVER

Maneuver is the employment of forces on the battlefield. It entails using a combination of fire (or fire potential) and movement to achieve a position of advantage with respect to the enemy, to develop the situation as necessary, and to close with and destroy the enemy. Based on the factors of METT-TC, the company commander may maneuver his platoons (mounted or dismounted) and other support forces to achieve the positional advantage. Ideally, when contact is likely, the commander moves the company using bounding overwatch. Once contact is made, he then makes the transition to maneuver and executes actions on contact as necessary. He uses direct and indirect fires from stationary friendly elements to provide protection for the moving elements as they close with the enemy. He also ensures effective flank security, an essential element of successful maneuver.

1-29. FIRE SUPPORT

The company integrates fire support into its portion of the battalion fight. The battalion fire support plan specifies the intended tactical purpose for each task assigned to the company. For example, the plan may state that a target will be fired so that it diverts an enemy force from a particular route. The company commander designates triggers for each target as well as primary and backup observers to call for and adjust fires as necessary. The commander then has ultimate responsibility for ensuring not only that the team effectively executes the target but also that the intended purpose is met (in this case, diverting the enemy from his original course).

1-30. AIR DEFENSE

The company executes passive or active air defense measures, or a combination, to evade enemy aircraft, degrade the effects of an air attack, or destroy the attacking aircraft. Passive air defense is aimed at avoiding detection and protecting the unit through the use of camouflage, hide positions, route selection, or other similar measures. Active air defense may entail execution of air defense drills by organic elements, employment of the company's organic firepower, employment of air defense assets, or any combination of these.

1-31. MOBILITY AND SURVIVABILITY

Mobility and survivability preserve friendly force freedom of maneuver, attack that of the enemy, and protect friendly forces from the effects of enemy weapon systems and the environment. All units, regardless of type, perform basic mobility and survivability tasks.

a. Because of the anticipated condensed planning timeline, SBCT companies rely heavily on the SBCT and its infantry battalions to plan and integrate mobility and survivability into offensive operations. The organic SBCT engineer company task-organizes its subordinate units and equipment to the infantry battalions and companies in order to accomplish specific mobility and survivability tasks. (Refer to Chapter 10 for a detailed discussion of the SBCT engineer company's organization, capabilities, and limitations.) Because overmatching mobility is critical to the success of the SBCT, engineers normally task organize to the lowest possible level, optimizing responsive mobility efforts during decentralized offensive operations.

b. Although mission-dependent, SBCT infantry battalions typically receive a task-organized engineer platoon; subsequently, infantry companies receive a task-organized engineer squad or team. Engineers perform obstacle reduction tasks for both mounted and dismounted maneuver to counter the effects of existing and reinforcing obstacles in all categories of terrain, including the urban environment. Engineer capabilities include manual, explosive, and mechanical breaching methods.

c. Engineers may employ limited countermobility capability (scatterable mines and sub-munitions) to shape enemy maneuver, to preserve and protect friendly forces, and to gain, retain, or secure the positional advantage. Engineers may also perform limited survivability tasks such as constructing individual and vehicle fighting positions, preparing protective positions, and constructing fortifications to enhance force protection.

d. Engineer assets may be organized into combat mobility platoons and mobility support sections.

(1) ***Combat Mobility Platoon.*** The combat mobility platoon normally supports an SBCT infantry battalion. During offensive operations, an infantry company may receive a portion, or all, of the combat mobility platoon based on the situation, mission, scheme of maneuver, and mobility tasks identified. Engineers normally do not task organize below squad level for mounted mobility operations. The platoon or squads may be task organized with a mobility support section or specific mobility support equipment from the SBCT engineer company's mobility support platoon.

(2) ***Mobility Support Section.*** The mobility support section provides short-span assault crossing of wet or dry gaps and moderate earthmoving and constructed obstacle reduction capability. The section, or any of the vehicles in the section, may be task organized to combat mobility platoons and squads.

1-32. COMBAT SERVICE SUPPORT

There are five functional areas of CSS: supply, transportation, maintenance, field services, and personnel services. The company has an organic supply section and normally has an attached medical and evacuation team. The SBCT battalion provides other CSS for the infantry company. Combat service support is discussed in detail in Chapter 11.

CHAPTER 2

BATTLE COMMAND AND TROOP-LEADING PROCEDURES

Battle command is the exercise of command in operations against a hostile, thinking enemy. It uses the leadership element of combat power to assimilate thousands of bits of information to visualize the operation, describe it in terms of intent, and direct the military actions of subordinates to achieve victory. Thinking and acting are simultaneous activities for infantry leaders in battle. Battle command covers the knowledge, techniques, and procedures necessary to control operations and to motivate soldiers and their organizations into action to accomplish assigned missions. As part of battle command, commanders visualize the current state of the battlefield as well as future states at different points in the operation; they then formulate concepts of operations that allow their units to progress from one state to the other at the least cost. Other elements of battle command include assigning missions, prioritizing and allocating resources, selecting the critical times and places to act, and knowing how and when to make adjustments during the fight.

SECTION I. COMMAND AND CONTROL

Command and control is the exercise of authority and direction by a properly designated commander over assigned or attached forces in the accomplishment of the mission.

2-1. COMMAND AND CONTROL

Command and control are two dependent concepts that have distinct meanings rather than one word or system.

a. **Command.** Command is the art of assigning missions, prioritizing resources, guiding and directing subordinates, and focusing the unit's energy to accomplish clear objectives. The commander's will to win, morale, and physical presence must be felt by those he leads. Leading soldiers and units to successfully accomplish the mission remains a command imperative; safeguarding soldiers is an inherent responsibility of command.

b. **Control.** Control is the science of defining limits, computing requirements, allocating resources, monitoring performance, and directing subordinate actions to accomplish the commander's intent.

c. **The Command and Control System.** The command and control (C2) system within an infantry rifle company is the arrangement of personnel, information management, procedures, and equipment and facilities essential to plan, prepare for, execute, and assess operations. The C2 system must be reliable, responsive, and durable. It must withstand crises, even the loss of the leader, and still continue to function. Although it is the most complex system in the unit, C2 must result in clear, concise instructions that focus the entire unit toward the objective.

2-2. CONCEPT OF COMMAND AND CONTROL

Historically, military commanders have employed variations of the two basic command and control concepts: detailed command and mission command.

a. **Detailed Command.** Detailed command centralizes information and decision-making authority. Orders and plans are detailed and explicit and successful execution depends on strict obedience by subordinates with minimal decision-making or initiative on their part. Detailed command emphasizes vertical, linear information flow where information flows up the chain of command and orders flow down.

b. **Mission Command.** Mission command concentrates on the objective of an operation and not on how to achieve that objective. It is the conduct of military operations through decentralized execution based on mission orders for effective mission accomplishment. Successful mission command results from subordinate leaders at all echelons exercising disciplined initiative within the commander's intent to accomplish missions. It requires an environment of trust and mutual understanding. Today's operational environment emphasizes the need for rapid decision-making and execution to include rapid response to changing situations. It stresses trust and mutual understanding among superiors and subordinates. Mission command accepts the uncertainty of war by reducing the need for complete certainty in order to act. Because mission command decentralizes decision making authority and grants subordinates significant freedom of action, it demands a leader who is thoroughly versed in Army doctrine and who is disciplined, informed, innovative, dynamic, audacious, confident, and competent.

2-3. LEADERSHIP

Leadership is the critical element of both the C2 system (personnel) and combat power. Through leadership, the commander inspires and directs his unit to complete demanding tasks in difficult situations. In addition, the following factors are essential to the company commander's ability to lead his company on the battlefield.

a. **Will.** Often the victor in battle is the unit that refuses to lose. Competent leaders and tough, realistic training are the keys to developing this determination. The leader must develop a "will to win" in his soldiers and his unit.

b. **Trust.** The leader must earn the trust of his soldiers. They must have confidence in his abilities. The leader also must trust his soldiers and develop a climate that allows subordinates to make decisions.

c. **Delegation.** After ensuring his subordinates are well trained, the leader must delegate the proper authority and freedoms to his men. He focuses his time and energy on what he determines as critical and delegates the remainder to his subordinates.

d. **Discipline.** The leader instills discipline in his soldiers. Discipline ensures that proper standards are maintained in the absence of leader supervision. The decentralized operations conducted by infantry companies require self-discipline of every soldier in the unit.

2-4. FUNDAMENTALS OF COMMAND AND CONTROL

The following fundamentals describe methods of directing military operations that encourage and expect subordinates to take action consistent with the intent and concept of higher headquarters.

a. **Expect Uncertainty.** The leader must understand the environment of combat; the battle will be dynamic and non-linear. Communications will be degraded, and the chaos of battle will often prevent the commander from knowing what is happening beyond his own senses. The situation during planning will always change before execution.

b. **Reduce Leader Intervention.** Plan and direct operations to require the absolute minimum intervention during execution. When soldiers expect the leader to make the decision or initiate the action, they are reluctant to take action. When precise control is required for synchronization, such as an on-order task, the leader should also provide the subordinate the criteria for making the decision. Leaders must realize that some loss of precision is better than inactivity.

c. **Increase Subordinate Planning Time.** The commander ensures the effective use of all available planning time. Although the majority of the planning takes place at the battalion and company level, the infantry rifle platoons and squads require extra time to conduct their rehearsals and inspections. A unit SOP is a key tool for using time well.

d. **Give Subordinates Maximum Freedom of Action.** Given the expected battlefield conditions, leaders at every level avoid placing unnecessary limits on their soldiers' freedom of action. The leader at the point of decision must have the knowledge, the training, and the freedom to make the correct decision that supports the commander's intent.

e. **Lead Well Forward.** The leader locates where he can best fight his unit, and he considers a number of factors in determining this location. His leadership is most effective face-to-face when he can see the situation and his soldiers can see him. Since he cannot be everywhere, he focuses on the decisive action that will accomplish his mission. He normally locates with his main effort (the subordinate unit assigned the decisive action) to provide his leadership and to be in a position to shift or re-task the main effort.

2-5. COMMAND AND CONTROL RESPONSIBILITIES

Infantry rifle company commanders train and maintain their units to conduct sustained operations. All leaders must ensure that their soldiers are tactically and technically proficient in the weapons systems found in the unit.

a. **Company Commander.** The commander employs command and control to ensure the company accomplishes its missions. He is also responsible for the tactical employment, training, administration, personnel management, and sustainment of his company. He must know the capabilities of his men and weapons systems and how to tactically employ them. The commander exercises command through his subordinate leaders. In an airborne and air assault battalion or an SBCT, he serves as an advisor to the higher commander concerning employment of all assets.

b. **Company Executive Officer.** The XO is the second in command of the company. He assists the company commander control the fires and movement of the rifle platoons. The XO frees the company commander of all distractions to allow the company commander to control the company’s most critical actions. (For example, the XO submits situation reports to the higher headquarters main command post, relays information to the company commander such as enemy and friendly situational updates, and communicates with adjacent units.) During preparation for combat operations, the XO serves as the company’s primary CSS planner and makes the necessary coordination with the higher headquarters, and he provides the company first sergeant with the CSS plan for execution. During execution, the XO may be designated as an element leader. Typically, he will control the company’s 60-mm mortar section and the antiarmor section. He may also control a supporting element consisting of a rifle platoon and other elements (for example, all of the company’s machine guns).

c. **Company First Sergeant.** The first sergeant is the senior NCO in the company and is normally the most experienced soldier in the company. He advises the company commander on tactical employment, and he is the expert on individual and NCO skills. He assists the company commander to plan, coordinate, and supervise all activities that support the mission. During execution, the 1SG is the primary CSS executor. He may also control elements or subordinate units during designated missions.

d. **Mortar Section Leader.** The mortar section leader is responsible for training and maintaining the company's 60-mm mortar section. He ensures that the company has effective fire support from the mortar section. He also assists the commander in planning the employment of the mortar section, coordinates with the company FIST, and controls the section during tactical operations.

e. **Rifle Platoon Leader.** The rifle platoon leader is responsible for training, maintaining, and tactically employing the platoon. His responsibilities include planning, coordinating, and integrating the platoon's fires to fit the supported unit's tactical plan. He knows the abilities of his weapons systems and is skilled in their use. The platoon leader must also be proficient in calling for and adjusting indirect fires. He employs his platoon tactically based on orders from the commander.

f. **Rifle Platoon Sergeant.** The platoon sergeant is normally the most experienced soldier in the platoon. He leads the elements of the platoon as directed by the platoon leader; he assumes responsibility of the platoon in the platoon leader's absence. The PSG is responsible for individual training, advising the platoon leader on tactical employment of the platoon's weapons systems, and helping to control the platoon during combat operations. He supervises equipment maintenance, supply, and casualty evacuation.

g. **Weapons Squad Leader.** The weapons squad leader is responsible for the discipline and training of his two machine gun teams and for the maintenance of his squad's equipment. During operations, he selects the location of primary, alternate, and supplementary firing positions. He controls the squad's fires and movement, and he ensures mutual support is achieved with other elements of the platoon with which he is operating. He may assume the responsibilities of the platoon sergeant in his absence.

h. **Rifle Squad Leader.** The squad leader is responsible for the discipline and training of his squad and the maintenance of his equipment. He is skilled in all aspects of his weapons systems. He employs his squad in accordance with (IAW) orders from the platoon leader. He detects and identifies targets, issues fire commands, and controls the fires and movement of his squad.

2-6. COMBAT ORDERS

Combat orders focus on what tasks must be accomplished without dictating in detail how they will be done. Whenever possible, they are oral orders issued face-to-face on the ground where the fight will take place.

a. **Brevity and Clarity.** Combat orders require well-trained subordinates who understand their commanders' intent and concepts (two levels higher). Combat orders address only the required information. They avoid unnecessary detail and redundancy and do not restate doctrine or SOPs.

b. **Tailoring.** The leader determines exactly what he wants his units to accomplish and clearly communicates these requirements to them. If one of his subordinates has not displayed the tactical competence to operate with a combat order, then the order must be

tailored based on the training, experience, and capability of the subordinate leader receiving the order.

(1) This tailoring may include nothing more than providing additional instructions, establishing more restrictive control measures, or directing a specific use for one of his organic assets.

(2) A commander may detail exactly how a platoon leader will employ his entire platoon, clearly state the limits for using his initiative, and collocate himself or the company XO with this platoon. This should be only a short-term solution; leaders must be trained to meet their responsibilities.

SECTION II. TROOP-LEADING PROCEDURES

Troop-leading procedures (TLP) are a sequence of actions that enable the company commander to use available time effectively and efficiently in the planning, preparing, executing, and assessing of combat missions. Collectively, the TLP are a tool to assist leaders in making, issuing, and supervising operation orders. The TLP are integrally coupled with the military decision-making process (MDMP) (see Appendix D, TLP-MDMP Integration). Digitization has enhanced, not changed, the SBCT infantry company commander's TLP. The tactical internet provides continually updated information from intelligence sources both internal and external to the SBCT. It transmits information from satellites, sensors, UAVs, and human intelligence (HUMINT) sources to the company commander for incorporation into his plan. This cycle of collection provides faster, more detailed information than previously available. Additionally, combat information provided by the RSTA squadron and battalion's reconnaissance platoon minimizes, but does not replace, the traditional assumptions and templates. The company commander must be knowledgeable of these resources and must plan operations to maximize the communications that make access to this information possible. Beyond the communications, the need to apply both known and templated enemies in planning processes is paramount.

2-7. APPLICATION OF TROOP-LEADING PROCEDURES

The following discussion of troop-leading procedures (Figure 2-1) assumes that the company commander will plan in a time-constrained environment. As such, the suggested techniques are oriented to help him quickly develop and issue a combat order.

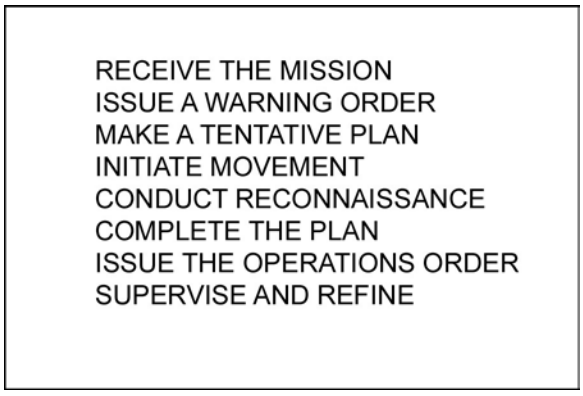


Figure 2-1. Troop-leading procedures.

a. Troop-leading procedures are consistent with the MDMP described in FM 5-0 (FM 101-5). The two are not identical, however, because specific steps of the MDMP are designed and intended to help coordinate staff and commander responsibilities of units with staffs. While the company commander has subordinate leaders who assist him with aspects of planning for operations, these leaders are not staff officers. This fact places the burden of planning on the shoulders of the company commander. The TLP reflect this reality while incorporating the spirit, language, and general process of the MDMP to assist in the preparation of OPORDs.

b. The TLP are not a hard and fast set of rules. Rather, they provide a guide that the company commander applies in ways that are consistent with the situation, his experience, and the experience of his subordinate leaders. The tasks involved in some steps (such as issue the warning order, initiate movement, and conduct reconnaissance) may recur several times. The last step, the activities of supervising and refining the plan, occur throughout the TLP. The following outline of the TLP assumes that the company commander will plan in a time-constrained environment. The suggested techniques can help him quickly develop and issue a combat order. The higher headquarters may issue two warning orders before the company commander begins his TLP.

(1) IAW FM 5-0 (101-5), the warning order will address the following elements at a minimum: type of operation, general location of operation, any reconnaissance to initiate, any movement to initiate, and an initial time line. The higher headquarters may issue additional information in the first warning order (for example, products from current staff or commander estimates). The leader will conduct his initial planning-time analysis, which allows him to determine the total amount of time to plan and prepare. This initial planning-time analysis is the basis for the detailed time analysis that will be conducted as planning continues. He analyzes the time his unit has available and prepares an initial time line. He should plan to use no more than one-third of the available planning time, thus leaving his subordinates with two-thirds of the available time. An effective technique to manage the available time is for the leader to issue his operations order in approximately one-fifth of the available planning time. This provides additional time for rehearsals without cutting into subordinate planning time. He should take into account ambient light effects when planning his time line.

(2) The company commander may issue a warning order immediately following the higher headquarters' initial warning order. He addresses the same elements of the higher headquarters' initial warning order in his initial warning order. The most important element of this warning order is his initial planning time line. He also may pass on any other instructions or information that he thinks will assist his subordinates in preparing for the upcoming mission. The company commander may distribute this warning order through the tactical internet, or he may brief his warning order from the actual terrain, terrain model, sketch, or map. If practical, he assembles his subordinate leaders to receive the warning order face-to-face from the actual terrain. If not practical, he may use a terrain model, sketch, or map. By quickly issuing his warning order the leader enables his subordinates to begin their own preparations while he develops the remaining warning orders and the OPORD. Warning orders, though not as detailed as an operations order, should follow the same five-paragraph format, providing as much information as possible with an initial time line.

(3) The second warning order from the higher headquarters consists of the essential information derived from mission analysis and the higher commander's guidance. It includes mission analysis results:

- Analysis of terrain.
- Enemy forces (paragraph 1a of the higher headquarters' OPORD to include the enemy situational template [SITEMP]).
- Higher headquarters' restated mission statement.
- Higher commander's intent.
- Area of operations (AO), area of influence, and area of interest.
- Commander's critical information requirements (CCIR).
- Risk guidance.
- Reconnaissance to initiate.
- Security measures.
- Deception guidance.
- Mobility/counter-mobility guidance.
- Specific priorities.
- Time line.
- Guidance on rehearsals.

The higher headquarters may issue additional information in the second warning order (for example, friendly forces, paragraph 1b of the OPORD). The commander must understand the information given in higher headquarters' second warning order. He can conduct an assessment but will not complete a detailed analysis until he receives the mission. Depending on the situation, he may choose to issue an initial warning order to his subordinates following receipt of the higher headquarters' second warning order.

(4) The company commander may determine that he needs to issue a second warning order after receiving the higher headquarters' second warning order or after receiving other pertinent information. Since he does very little analysis with information received in the higher headquarters' second warning order, and depending on his situation, he may not issue the second company warning order. He may choose instead to issue this information after receiving the higher headquarters' third warning order.

2-8. RECEIVE THE MISSION

As the title indicates, this step addresses the actions a company commander takes as he receives his mission. "Receiving" the mission may occur in one of several ways. It may begin with the receipt of a warning order from the higher headquarters, or it may not begin until he actually receives the higher headquarters' OPORD (which would be the case if the higher headquarters did not use warning orders prior to issuing the OPORD). In the most challenging situation, it may come about as a result of a change in the overall situation during execution. Besides receiving (or deducing) his mission during the first step of the TLP, the company commander must also assess the time he has available to prepare for and execute the mission. As a result of his time assessment, he prepares an initial time line for planning and execution.

a. **Mission Analysis.** Although the focus of the first step of the TLP is on determining the unit mission and assessing the time available to accomplish the mission, this step also begins an activity called *mission analysis.* The company commander will not receive his mission until the higher headquarters produces its third warning order or

the OPORD. For him, mission analysis is not as detailed as it is in the higher headquarters' MDMP. His mission analysis is essentially an analysis of METT-TC considerations. He does this in as much depth as time and quality of information allows. Analyzing the factors of METT-TC is a continuous process. He constantly receives information from the time that he begins planning through execution. During execution, his continuous analysis enables him to issue well-developed fragmentary orders. He must assess if the new information affects his mission and his plan. If it does, he then must decide how to adjust his plan to meet this new situation. He does not need to analyze the factors of METT-TC in any set order or sequence. How and when he analyzes each factor depends on when information is made available to him and his own experience and preference. One technique is to parallel the TLP based on the products received from the higher headquarters' MDMP. Using this technique, he analyzes *mission* first, *terrain and weather, enemy*, *troops and support available*, *time available,* and finally *civil considerations*. This is not a hard and fast set of rules. Different elements of information that come into the unit must be analyzed and assessed.

(1) ***Mission.*** Leaders at every echelon must have a clear understanding of the mission, intent, and concept of the operation of the commanders one and two levels higher. This understanding makes it possible to exercise disciplined initiative. The company commander captures his understanding of what his unit is to accomplish in his restated mission statement. He takes six steps to write his restated unit mission statement. These steps include analyzing the higher headquarters' (*two levels up*) mission, intent and concept; the immediate higher headquarters' (*one level up*) mission, intent, and concept; identifying specified, implied, and essential tasks, and any constraints.

(a) *Higher Headquarters (two levels up) Mission, Intent, and Concept.* The company commander understands this higher headquarters' concept of the operation. He identifies this headquarters' task and purpose and how his immediate higher headquarters is contributing to the fight. He also must understand the commander's intent (*two levels up*).

(b) *Immediate Higher Headquarters (one level up) Mission, Intent, and Concept.* The company commander understands the immediate headquarters' concept of the operation. He identifies this headquarters' task and purpose as well as his contribution to this fight. The company commander must clearly understand the commander's intent from the OPORD (*one level up*). Additionally, he identifies the task, purpose, and disposition for all adjacent maneuver elements underneath this headquarters' control.

(c) *Unit Mission*. The company commander finds his unit's mission in the concept of the operation paragraph in the immediate higher headquarters' OPORD. The purpose of the main effort unit usually matches or achieves the purpose of the immediate higher headquarters. Similarly, supporting effort units' purposes must relate directly to the main effort unit accomplishing its purpose. The company commander must understand how his unit relates to the purposes of the other units. Finally, he determines his unit's mission essential tactical task. The unit must accomplish this task in order to accomplish the assigned purpose. He must understand why the commander (*one level up*) assigned his unit the particular tactical task and determine how it fits into the immediate higher headquarters' concept of the operation.

(d) *Constraints.* Constraints placed on the leader by a higher command to dictate an action or inaction restricts the freedom of action the subordinate leader has for planning by stating the things that he must or must not do. The company commander identifies all

constraints the OPORD places on the unit's ability to execute its mission. There are two types of constraints: proscriptive (requirements for action) and prohibitive (requirements for inaction).

(e) *Identify Tasks*. The company commander must identify and understand the tasks required to accomplish a given mission. There are three different types of tasks: specified, implied, and essential.

- Specified Tasks. Tasks specifically assigned to a unit by a higher headquarters. Paragraphs 2 and 3 of a higher headquarters' order or plan state specified tasks. Specified tasks may also be found in annexes and digital overlays (for example, "seize OBJ FOX," "reconnoiter route BLUE," "assist the forward passage of B company," "send two soldiers to assist in the loading of ammunition").
- Implied Tasks. Tasks that must be performed to accomplish a specified task but are not stated in a higher headquarters' order. Implied tasks are derived from a detailed analysis of the higher headquarters' order, the enemy situation and courses of action, and the terrain. Analysis of the unit's current location in relation to future areas of operation as well as the doctrinal requirements for each specified task might provide implied tasks. Only those tasks that require allocation of resources should be retained.
- Essential Tasks. These tasks are important for the success of the unit. They are derived from a review of the specified and implied tasks. An essential task that must be executed to accomplish the assigned purpose is the mission essential task.

(f) *Restated Mission Statement*. The leader prepares his restated mission statement expressed around the five W's: *who*, *what*, *when*, *where*, and *why*. The "*who"* is the company and or platoon; the "*what"* is the unit's mission essential task. The "*when"* is given in the higher headquarters' OPORD; the "*where"* is the objective or location taken from the higher headquarters' OPORD; and the "*why"* is the company and or platoon purpose taken from the higher headquarters' concept of the operation. An example of a company restated mission statement follows:

> **EXAMPLE:** B Company attacks to seize OBJ FOX (NB123456) not later than (NLT) 010200 October __ in order to prevent enemy forces from counterattacking into the battalion's main effort.

(2) ***Terrain and Weather.*** If the higher headquarters has developed a modified combined obstacle overlay (MCOO) and shared it via the TI, the company commander can quickly accomplish his analysis of the terrain. From the MCOO he will already have an appreciation for the general nature of the ground and the effects of weather. However, he must conduct his own detailed analysis to determine how terrain and weather will uniquely affect his unit's mission and the enemy. He must go beyond merely passing along the MCOO to his subordinate leaders and making a general observation of the terrain (for example, this is high ground). He must arrive at significant conclusions about how the terrain and weather will affect the enemy and the unit. Most importantly, the

company commander will apply these conclusions when he develops courses of action for both enemy forces and his unit.

(a) *Classifying Terrain Mobility*. Terrain mobility is classified in one of four categories: unrestricted, restricted, severely restricted, and complex.

- Unrestricted. This terrain is free of any restrictions to movement; no actions are required to enhance mobility. This type of terrain generally allows wide maneuver and offers unlimited travel over well-developed road networks.
- Restricted. This terrain hinders movement to some degree. Little effort is needed to enhance mobility, but units may need to detour frequently. They may have difficulty maintaining optimum speed, moving in some types of combat formations, or transitioning from one formation to another.
- Severely restricted. This terrain severely hinders or slows movement in combat formations unless some effort is made to enhance mobility. It may require commitment of engineer forces to improve mobility, or it may require deviation from doctrinal formations and or deviation from doctrinal rates of march.
- Complex. Complex terrain includes two or more of the traditional classifications of terrain. For example, complex terrain may have an area of forest that is restricted along with an urban area that is severely restricted and rolling plains that are unrestricted.

(b) *Prioritizing Terrain Analysis.* Limited available planning time may force the company commander to prioritize his terrain analysis. For example, in the conduct of an attack, a company commander may prioritize the area immediately around the objective for analysis, followed by the company's specific axis leading to the objective. Given more time, he may then analyze the remainder of his company's area of operation, area of influence, and area of interest.

(c) *Using Visual Aids.* The company commander prepares some sort of visual aid to depict and explain the results of his analysis for his subordinates so they can understand his conclusions about the effects that the terrain and weather will have on the mission. This visual aid could be a digital overlay sent to the subordinate leaders via the tactical internet, a hand-drawn overlay for a map sheet, or a terrain model. Whatever the chosen method, he must include graphical depictions of terrain mobility classification, key terrain, inter-visibility (IV) lines, known obstacles, and avenues of approach and mobility corridors.

(d) *Using OAKOC.* The military aspects of terrain (OAKOC), Figure 2-2, are used to analyze the ground. The sequence used to analyze the military aspects of terrain can vary. The leader may prefer to determine *Obstacles* first, *Avenues of Approach* second, *Key Terrain* third, *Observation and Fields of Fire* fourth, and *Cover and Concealment* last. For each aspect of terrain, the company commander determines its effect on both friendly and enemy forces. These effects translate directly into conclusions that can be applied to either friendly or enemy courses of action. One technique to analyze terrain is to use a matrix. See Figure 2-3 (Analysis of Terrain Matrix).

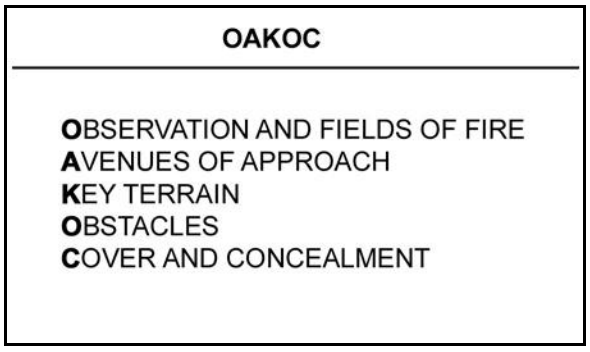


Figure 2-2. Military aspects of terrain.

		Effects	Conclusions
Obstacles		Friendly	
		Enemy	
Avenues of Approach		Friendly	
		Enemy	
Key Terrain #1	Observation	Friendly	
		Enemy	
	Fields of Fire	Friendly	
		Enemy	
	Cover	Friendly	
		Enemy	
	Concealment	Friendly	
		Enemy	

Figure 2-3. Analysis of terrain matrix.

(e) *Obstacles*. The company commander first identifies existing and reinforcing obstacles in his area of operation that limit mobility with regards to the mission. Existing obstacles include, but are not limited to, the following:

- Ravines.
- Gaps and ditches over 3 meters wide.
- Tree stumps and large rocks over 18 inches high.
- Forests with trees 8 inches or more in diameter with less than 4 meters between trees.
- Man-made existing obstacles (for example, buildings or power and telephone lines).

Reinforcing obstacles include, but are not limited to, the following:

- Minefields (conventional and situational).
- Antitank ditches.
- Wire obstacles.

Figure 2-4, page 2-12, lists several offensive and defensive considerations the infantry rifle company commander can include in his analysis of obstacles and restricted terrain.

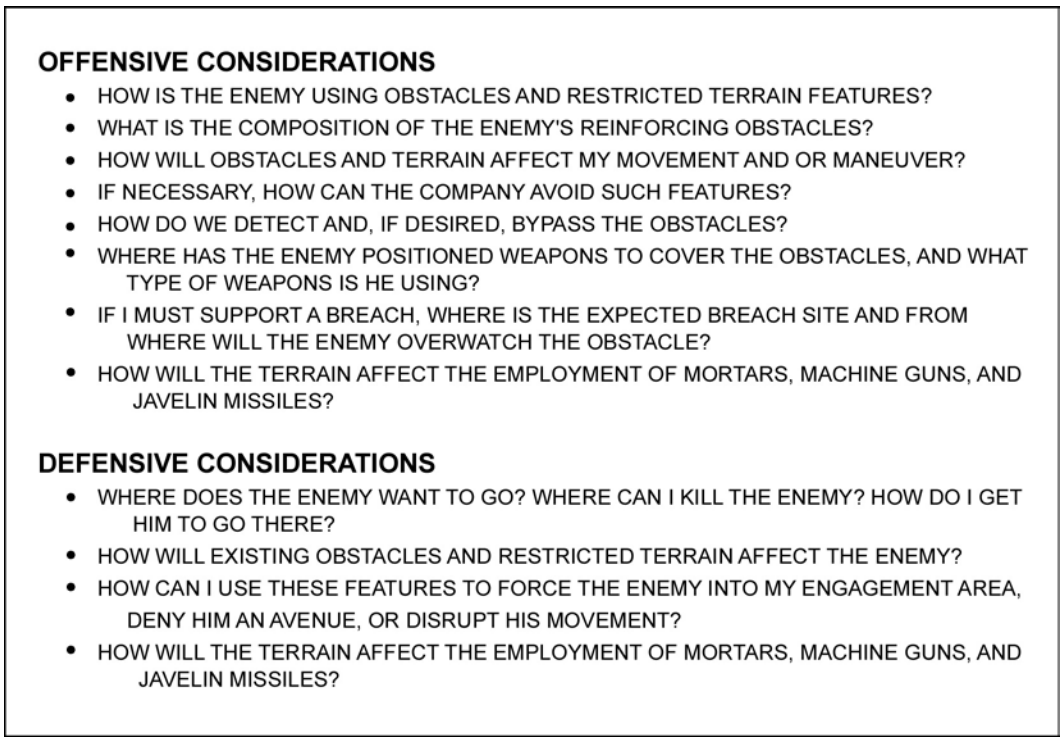

OFFENSIVE CONSIDERATIONS
• HOW IS THE ENEMY USING OBSTACLES AND RESTRICTED TERRAIN FEATURES?
• WHAT IS THE COMPOSITION OF THE ENEMY'S REINFORCING OBSTACLES?
• HOW WILL OBSTACLES AND TERRAIN AFFECT MY MOVEMENT AND OR MANEUVER?
• IF NECESSARY, HOW CAN THE COMPANY AVOID SUCH FEATURES?
• HOW DO WE DETECT AND, IF DESIRED, BYPASS THE OBSTACLES?
• WHERE HAS THE ENEMY POSITIONED WEAPONS TO COVER THE OBSTACLES, AND WHAT TYPE OF WEAPONS IS HE USING?
• IF I MUST SUPPORT A BREACH, WHERE IS THE EXPECTED BREACH SITE AND FROM WHERE WILL THE ENEMY OVERWATCH THE OBSTACLE?
• HOW WILL THE TERRAIN AFFECT THE EMPLOYMENT OF MORTARS, MACHINE GUNS, AND JAVELIN MISSILES?
DEFENSIVE CONSIDERATIONS
• WHERE DOES THE ENEMY WANT TO GO? WHERE CAN I KILL THE ENEMY? HOW DO I GET HIM TO GO THERE?
• HOW WILL EXISTING OBSTACLES AND RESTRICTED TERRAIN AFFECT THE ENEMY?
• HOW CAN I USE THESE FEATURES TO FORCE THE ENEMY INTO MY ENGAGEMENT AREA, DENY HIM AN AVENUE, OR DISRUPT HIS MOVEMENT?
• HOW WILL THE TERRAIN AFFECT THE EMPLOYMENT OF MORTARS, MACHINE GUNS, AND JAVELIN MISSILES?

Figure 2-4. Considerations in analysis of obstacles and restricted terrain.

(f) *Avenues of Approach*. An avenue of approach is an air or ground route of an attacking force leading to an objective or key terrain. Avenues of approach are classified by type (mounted, dismounted, air, or subterranean), formation, and speed of the largest unit that can travel along it. First, the company commander must identify mobility corridors, if not provided by the higher headquarters. Mobility corridors are areas where a force can move in a doctrinal formation at a doctrinal rate of march. They are classified by type and size of force and formation employed. Two examples are--

- A motorized rifle platoon (MRP) moving in column (MRP-Column).
- An enemy squad (SQD) moving in a wedge (dismounted SQD–Wedge)

The company commander groups mutually supporting mobility corridors to form an avenue of approach. If mutually supporting mobility corridors do not exist, then a single mobility corridor may become an avenue of approach. Avenues of approach are classified in the same manner as a mobility corridor. After identifying these avenues of approach, he must evaluate each one and reach a conclusion on their importance to the situation. Figure 2-5 lists several offensive and defensive considerations that the infantry rifle company commander can include in his evaluation of avenues of approach.

OFFENSIVE CONSIDERATIONS

- HOW CAN I USE EACH AVENUE OF APPROACH TO SUPPORT MY MOVEMENT AND MANEUVER?
- HOW WILL EACH AVENUE SUPPORT MOVEMENT TECHNIQUES, FORMATIONS, AND (ONCE WE MAKE ENEMY CONTACT) MANEUVER?
- WILL VARIATIONS IN TRAFFICABILITY FORCE CHANGES IN FORMATIONS OR MOVEMENT TECHNIQUES OR REQUIRE CLEARANCE OF RESTRICTED TERRAIN?
- WHAT ARE THE ADVANTAGES AND DISADVANTAGES OF EACH AVENUE?
- WHAT ARE THE ENEMY'S LIKELY CONUNTERATTACK ROUTES?
- WHAT LATERAL ROUTES COULD WE USE TO SHIFT TO OTHER AXES, AND WHICH ONES COULD THE ENEMY USE TO THREATEN OUR FLANKS?
- HOW WILL EACH AVENUE OF APPROACH AFFECT THE RATE OF MOVEMENT OF EACH TYPE OF FORCE?

DEFENSIVE CONSIDERATIONS

- WHAT ARE ALL LIKELY ENEMY AVENUES INTO MY SECTOR?
- HOW CAN THE ENEMY USE EACH AVENUE OF APPROACH?
- WHAT LATERAL ROUTES COULD THE ENEMY USE TO THREATEN OUR FLANKS?
- WHAT AVENUES WOULD SUPPORT A FRIENDLY COUNTERATTACK OR REPOSITIONING OF FORCES?

Figure 2-5. Considerations in avenue of approach analysis.

(g) *Key Terrain*. The company commander must identify key terrain. Key terrain is any location or area of which the seizure, retention, or control affords a marked advantage to either combatant. It is a conclusion rather than an observation: a prominent hilltop overlooking an avenue of approach, for example, may or may not be key terrain. Even if the hill offers clear observation and fields of fire, it is of no marked advantage to the unit that controls it if the opposition can easily bypass it on another avenue of approach. On the other hand, if the hilltop affords cover and concealment, observation, and good fields of fire on multiple avenues of approach, or is the only avenue of approach in the area, the terrain offers a definite advantage to whoever controls it. The commander must assess what terrain is essential to his mission accomplishment. An example of key terrain for an infantry rifle company in the attack could be a tree line that overlooks the enemy's reverse slope defense. Controlling this area may be critical in establishing a support-by-fire position to protect a breach force. The commander also must determine if any ground is *decisive terrain*. This is key terrain for which the seizure, retention, or control is necessary for mission accomplishment. Decisive terrain is not present in every situation. By determining that terrain is decisive, he recognizes that seizing or retaining it is an absolute requirement for successful accomplishment of the mission. Figure 2-6, page 2-14, lists several considerations that can be included in his analysis of key terrain.

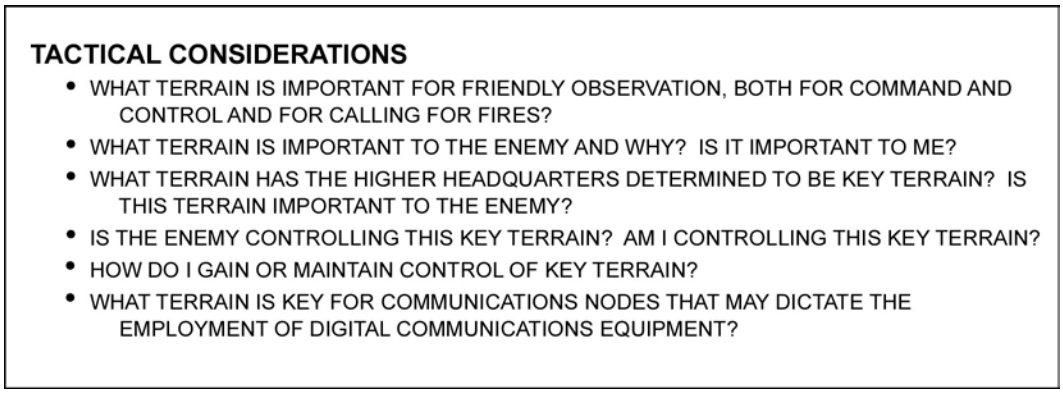

TACTICAL CONSIDERATIONS
• WHAT TERRAIN IS IMPORTANT FOR FRIENDLY OBSERVATION, BOTH FOR COMMAND AND CONTROL AND FOR CALLING FOR FIRES?
• WHAT TERRAIN IS IMPORTANT TO THE ENEMY AND WHY? IS IT IMPORTANT TO ME?
• WHAT TERRAIN HAS THE HIGHER HEADQUARTERS DETERMINED TO BE KEY TERRAIN? IS THIS TERRAIN IMPORTANT TO THE ENEMY?
• IS THE ENEMY CONTROLLING THIS KEY TERRAIN? AM I CONTROLLING THIS KEY TERRAIN?
• HOW DO I GAIN OR MAINTAIN CONTROL OF KEY TERRAIN?
• WHAT TERRAIN IS KEY FOR COMMUNICATIONS NODES THAT MAY DICTATE THE EMPLOYMENT OF DIGITAL COMMUNICATIONS EQUIPMENT?

Figure 2-6. Considerations in key terrain analysis.

(h) *Observation and Fields of Fire*. The company commander must identify locations along each avenue of approach that provide clear observation and fields of fire for both the attacker and the defender. He analyzes the area surrounding key terrain, objectives, engagement areas, and obstacles. He locates IV lines (terrain that inhibits observation from one point to another) and assesses the ability of the attacking force to overwatch or support movement (with direct fire). In analyzing fields of fire, he focuses on both the friendly and enemy potential to cover terrain (especially avenues of approach and key terrain) with direct fires. Additionally, he must identify positions that enable artillery observers to call indirect fire. Whenever possible, he conducts a reconnaissance of the ground from both enemy and friendly perspectives. He might conduct this reconnaissance personally, by map, or with his subordinate units, or he can use the assets and information provided by the RSTA squadron or battalion reconnaissance platoon. This reconnaissance helps him to see the ground in a more objective manner and to see how the ground affects both enemy and friendly forces (Figure 2-7).

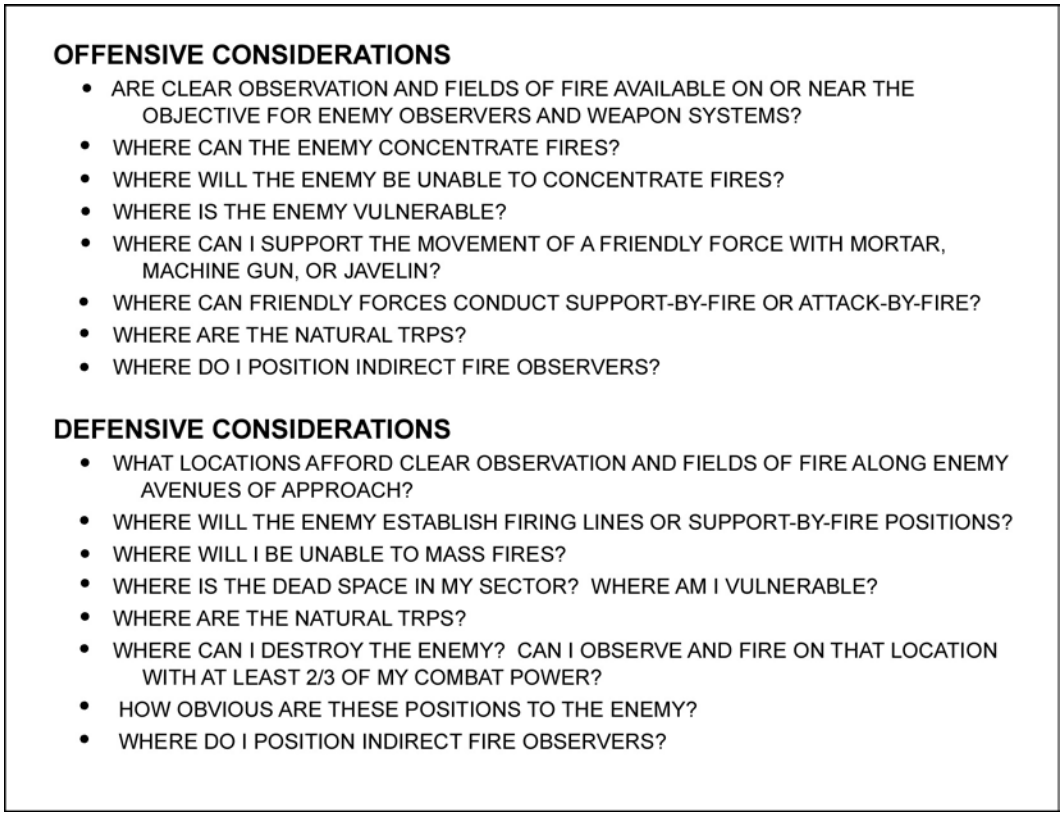

OFFENSIVE CONSIDERATIONS
• ARE CLEAR OBSERVATION AND FIELDS OF FIRE AVAILABLE ON OR NEAR THE OBJECTIVE FOR ENEMY OBSERVERS AND WEAPON SYSTEMS?
• WHERE CAN THE ENEMY CONCENTRATE FIRES?
• WHERE WILL THE ENEMY BE UNABLE TO CONCENTRATE FIRES?
• WHERE IS THE ENEMY VULNERABLE?
• WHERE CAN I SUPPORT THE MOVEMENT OF A FRIENDLY FORCE WITH MORTAR, MACHINE GUN, OR JAVELIN?
• WHERE CAN FRIENDLY FORCES CONDUCT SUPPORT-BY-FIRE OR ATTACK-BY-FIRE?
• WHERE ARE THE NATURAL TRPS?
• WHERE DO I POSITION INDIRECT FIRE OBSERVERS?
DEFENSIVE CONSIDERATIONS
• WHAT LOCATIONS AFFORD CLEAR OBSERVATION AND FIELDS OF FIRE ALONG ENEMY AVENUES OF APPROACH?
• WHERE WILL THE ENEMY ESTABLISH FIRING LINES OR SUPPORT-BY-FIRE POSITIONS?
• WHERE WILL I BE UNABLE TO MASS FIRES?
• WHERE IS THE DEAD SPACE IN MY SECTOR? WHERE AM I VULNERABLE?
• WHERE ARE THE NATURAL TRPS?
• WHERE CAN I DESTROY THE ENEMY? CAN I OBSERVE AND FIRE ON THAT LOCATION WITH AT LEAST 2/3 OF MY COMBAT POWER?
• HOW OBVIOUS ARE THESE POSITIONS TO THE ENEMY?
• WHERE DO I POSITION INDIRECT FIRE OBSERVERS?

Figure 2-7. Considerations in analysis of observation and fields of fire.

(i) *Cover and Concealment*. The company commander looks at the terrain, foliage, structures, and other features along avenues of approach and on objectives or key terrain to identify sites that offer cover (protection from the effects of direct and indirect fire) and concealment (protection from observation). In the defense, weapon positions must be both lethal and survivable, and effective cover and concealment is just as vital as clear fields of fire (Figure 2-8).

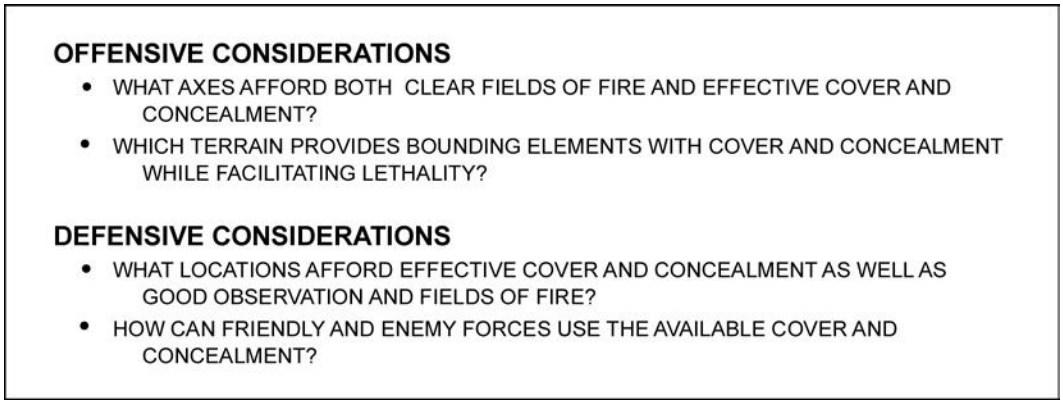

OFFENSIVE CONSIDERATIONS
• WHAT AXES AFFORD BOTH CLEAR FIELDS OF FIRE AND EFFECTIVE COVER AND CONCEALMENT?
• WHICH TERRAIN PROVIDES BOUNDING ELEMENTS WITH COVER AND CONCEALMENT WHILE FACILITATING LETHALITY?
DEFENSIVE CONSIDERATIONS
• WHAT LOCATIONS AFFORD EFFECTIVE COVER AND CONCEALMENT AS WELL AS GOOD OBSERVATION AND FIELDS OF FIRE?
• HOW CAN FRIENDLY AND ENEMY FORCES USE THE AVAILABLE COVER AND CONCEALMENT?

Figure 2-8. Considerations in analysis of cover and concealment.

(j) *Weather Analysis*. There are five military aspects of weather: visibility, winds, precipitation, cloud cover, and temperature/humidity. Consideration of the effects of

weather is an essential part of the company commander's mission analysis. The commander must go beyond merely making observations; he must arrive at significant conclusions about how the weather will affect the visibility, mobility, and survivability of his company and the enemy. The company commander reviews the conclusions from his higher commander and identifies his own critical conclusions about the five military aspects of weather. He must apply the results of his analysis when he develops friendly and enemy courses of action.

(k) *Visibility*. The company commander identifies critical conclusions about visibility factors (such as light data, fog, and smog) and battlefield obscurants (such as smoke and dust). The commander considers light data and identifies critical conclusions about beginning morning nautical twilight (BMNT), sunrise (SR), sunset (SS), end of evening nautical twilight (EENT), moonrise (MR), moonset (MS) and percentage of illumination. Some additional visibility considerations include:

- Will the sun rise behind my attack? Will I attack toward the sunrise?
- How can I take advantage of the limited illumination?
- How will this affect friendly and enemy target acquisition?
- Will the current weather favor the use of smoke to obscure during breaching?
- Will fog affect friendly and enemy target acquisition?

(l) *Winds*. The company commander identifies critical conclusions about wind factors (such as direction and speed) Some wind considerations are:

- Will wind speed cause smoke to dissipate quickly?
- Will wind speed and direction favor enemy use of smoke?
- Will wind speed and direction affect the employment of 60mm mortars?

(m) *Precipitation*. The company commander identifies critical conclusions about precipitation factors (such as type, amount, and duration). Some precipitation considerations are:

- How will precipitation affect the mobility of the company?
- How can precipitation add to the company achieving surprise?

(n) *Cloud Cover*. The company commander identifies critical conclusions about cloud cover (such as limits on illumination and solar heating of targets).

- How will cloud cover affect company operations at night? How will it affect the enemy?
- How will cloud cover affect the target acquisition of the CLU?

(o) *Temperature and Humidity*. The company commander identifies critical conclusions about temperature factors (such as high and low temperatures and infrared crossover times) and battlefield factors (such as use of smoke or chemicals). Some temperature considerations are:

- How will temperature (hot or cold) and humidity affect the rate of march for the company?
- How will temperature (hot or cold) and humidity affect the soldiers and equipment?
- Will temperatures and humidity favor the use of nonpersistent chemicals?

(3) ***Enemy.*** Analyzing the enemy consists of seven steps: doctrinal analysis, composition, disposition, strength, capabilities, company level enemy SITEMP, and initial company priority intelligence requirements (PIR). The critical outcome of analyzing the enemy is for the company commander to identify the enemy's weaknesses

so that he might exploit them by applying overwhelming combat power to achieve his purpose. He must know how the enemy will fight and the ground where the fight will occur. The company commander must understand what is actually known of the enemy and what is merely templated. Without this appreciation, it is possible to develop an erroneous plan that is based solely on assumptions and therefore not a reliable prediction of what will occur. The company commander must understand the assumptions the battalion S2 used to portray the enemy's courses of action. Furthermore, his own assumptions about the enemy must be consistent with those of his higher commander.

NOTE: In analyzing the enemy, the company commander must understand the intelligence preparation of the battlefield (IPB). Although he does not prepare IPB products for his subordinates, he must be able to use the products of the higher headquarters' IPB effectively

(a) *Doctrinal Analysis (How the Enemy Will Fight)*. It is not enough simply to know the number and types of vehicles, soldiers, and weapons the enemy has. The company commander must thoroughly understand when, where, and how the enemy prefers or tends to use the assets he possesses. A doctrinal template is a visual illustration of how the enemy force might look and act without the effects of weather and terrain. He looks at specific enemy actions during a given operation (such as defense out of contact, security zone defense, or movement to contact) and uses the appropriate doctrinal template to gain insights into how the enemy may fight. Likewise, he must understand enemy doctrinal objectives. In doctrinal terms, he asks: Is the enemy oriented on the terrain (for example, a forward detachment), on his own force (such as an advance guard), or on friendly forces (as in a security zone)? What effect will this have on the way the enemy fights? As the global situation changes, however, the possibility increases of fighting adversaries with no structured doctrine. Therefore, the process of templating the enemy would be somewhat limited. In such a situation, a company commander must rely on information provided by RSTA squadron and battalion reconnaissance platoon assets. He also may make sound assumptions about the enemy, human nature, and local culture.

(b) *Composition*. His analysis must determine the types of vehicles, soldiers, and equipment the enemy could use against his unit. From the enemy forces paragraph (1a), the intelligence annex of the higher headquarters' OPORD, or through information provided via the common operational picture (COP), he identifies the task and purpose of the enemy elements.

(c) *Disposition*. He determines how the enemy is (or might be) arrayed from higher headquarters' information. Next, he determines the enemy's form of maneuver or defensive technique. If available, he determines from what echelon force the enemy comes. He determines the disposition for the next two higher enemy elements.

(d) *Strength*. He identifies the enemy's strength by unit. He can obtain this information by translating percentages given from higher headquarters to the actual numbers in each enemy element or from information provided by the COP.

(e) *Capabilities*. Based on the S2's assessment and the enemy's doctrine and current location, the company commander must determine the enemy's capabilities. This also includes studying the maximum effective range for each weapon system, doctrinal rates of march, and associated time lines to perform certain tasks. One technique is to use the

BOS as a checklist to address every significant element the enemy brings to the fight. The company commander also determines the capabilities of the next higher enemy element. These capabilities should include reasonable assets the next higher element, or other higher enemy headquarters, may provide. This should include, but is not limited to, employment of reserves, use of chemical weapons, artillery and or mortar locations and ranges, and employment of reconnaissance assets.

(f) *Enemy SITEMP*. To identify how the enemy will potentially fight, the company commander weighs the result of his analysis of terrain and weather against the higher headquarters' SITEMP. The refined product is a company SITEMP, a visual/graphic depiction of how he believes the enemy will fight under specific battlefield conditions. This SITEMP is portrayed one echelon lower than that developed by the higher headquarters' S2. For example, if a battalion SITEMP identifies a motorized rifle platoon (MRP) on the company's objective, the company commander, using his knowledge of both the enemy's doctrine and the terrain, develops a SITEMP that positions individual vehicles from the MRP and possibly individual fighting positions or trenches in the platoon's defense. He includes in this SITEMP the likely sectors of fire of the enemy's weapons and any tactical and protective obstacles, either identified or merely templated, which support the defense. Figure 2-9 depicts recommended SITEMP items. It is important to remember that the company commander must not develop his SITEMP independently of the higher commander's guidance and the S2's product. The product must reflect the results of reconnaissance and shared information. Differences between the SITEMPs must be resolved before the company commander may continue with his analysis of the enemy. Finally, given the scale with which the company commander often develops his SITEMP, a 1:50,000 map, it is advisable to transfer the SITEMP to a large-scale sketch for briefing purposes when the situation allows. This is not for analysis, but to enable subordinates to see the details of the anticipated enemy course of action (COA). Once he briefs the enemy analysis to his subordinates, he must ensure they understand what is known, what is suspected, and what is merely templated (estimated). Unless given the benefit of reconnaissance or other intelligence, his SITEMP is only an "estimate" of how the enemy may dispose itself. He must not take these as facts. Reconnaissance is critical in developing the best possible enemy scenario.

DEFENSE	OFFENSE
PRIMARY/ALTERNATE/SUBSEQUENT POSITIONS	ATTACK FORMATIONS
ENGAGEMENT AREAS	AXES OF ADVANCE
INDIVIDUAL VEHICLES	FIRING LINES
CREW-SERVED WEAPONS	OBJECTIVES
TACTICAL AND PROTECTIVE OBSTACLES	RESERVE FORCE COMMITMENT
TRENCHES	PLANNED INDIRECT FIRE TARGETS
PLANNNED INDIRECT FIRE TARGETS	SITUATIONAL OBSTACLES
OBSERVATION POSTS	RECONNAISSANCE OBJECTIVES
COMMAND AND CONTROL POSITIONS	RECONNAISSANCE FORCE ROUTES
FPF AND FPL	PHASE LINES
LOCATION OF RESERVES	PLANNNED POINT OF PENETRATION
ROUTES FOR RESERVE COMMITMENT	
TRAVEL TIME FOR RESERVE COMMITMENT	
BATTLE POSITIONS/STRONGPOINTS/SECTORS	
SECTORS OF FIRE	

Figure 2-9. Recommended SITEMP items.

(g) *Initial Priority Intelligence Requirements.* The company commander will develop his initial PIR. PIR are defined as information about the enemy that will lead to a critical decision by a commander. Answering the PIR will allow the commander to clarify the enemy situation. Although the company commander's PIR will help clarify the enemy situation for him, they usually lead to answering the battalion commander's PIR.

(4) ***Troops and Support Available.*** Perhaps the most critical aspect of mission analysis is determining the combat potential of one's own force. The company commander must realistically and unemotionally determine all available resources and any new limitations based on level of training or recent fighting. This includes troops who are either attached to or in direct support of his unit. He must know the status of his soldiers' morale, their experience and training, and the strengths and weaknesses of subordinate leaders. The assessment includes knowing the strength and status of his soldiers and their equipment. It also includes understanding the full array of assets that are in support of the unit. He must know, for example, how much indirect fire, by type, is available and when it will become available.

(5) ***Time Available.*** As addressed in the first step of the TLP, time analysis is a critical aspect to planning, preparation, and execution. The company commander must not only appreciate how much time is available. He must also be able to appreciate the time-space aspects of preparing, moving, fighting, and sustaining. He must be able to see his own tasks and enemy actions in relation to time. For example, he must be able to assess the impact of limited visibility conditions on the troop-leading procedures. He must know how long it takes under such conditions to prepare for certain tasks--such as order preparation, rehearsals, and backbriefs--and to complete other time-sensitive preparations for subordinate elements. He must understand how long it takes to deploy a support-by-fire element and determine the amount of ammunition that is needed to sustain the support for a specific period of time. He must know how long it takes to assemble a bangalore torpedo and to breach a wire obstacle. Most importantly, as events occur he must adjust his appreciation of time available to him and assess its impact on what he wants to accomplish. Finally, he must update previous time lines for his

subordinates, listing all events that affect the company and its subordinate elements. Figure 2-10 provides an example of a company time line.

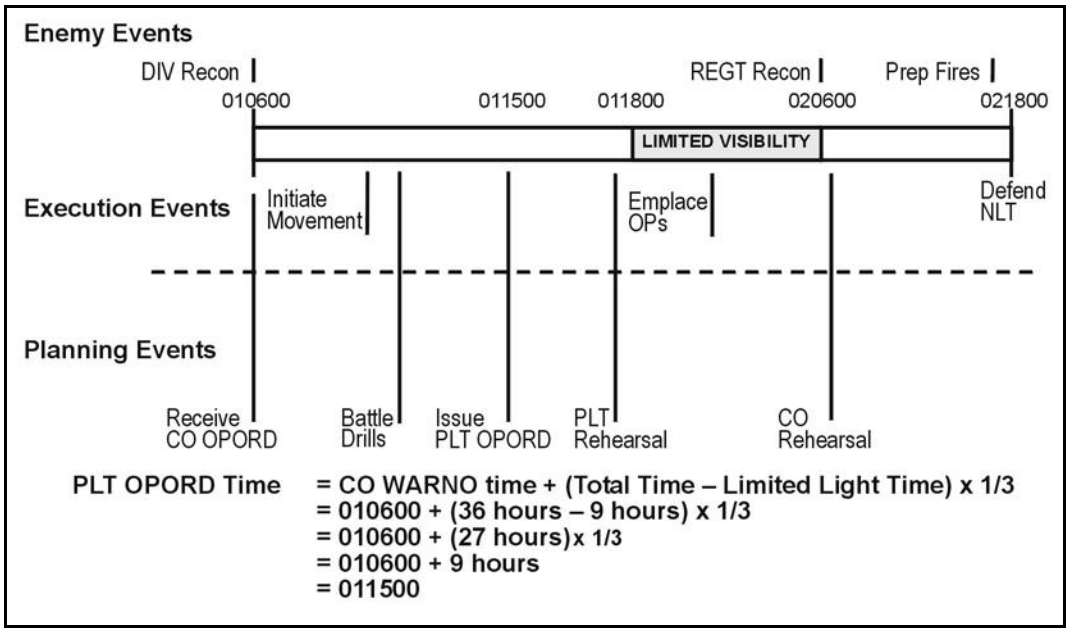


Figure 2-10. Example of a company time line.

(6) ***Civil Considerations.*** The higher headquarters will provide the company commander with civil considerations that may affect the battalion's mission. The company commander must also identify any civil consideration that may affect only his mission. These may include refugee movement, humanitarian assistance requirements, or specific requirements related to the rules of engagement (ROE) or rules of interaction (ROI).

(7) ***Summary of Mission Analysis.*** The end result of mission analysis is the development of a number of insights and conclusions regarding how the factors of METT-TC affect accomplishment of the unit's mission. From these insights and conclusions, the company commander derives a restated mission, an initial intent, an initial risk assessment, and possibly a decisive point. He uses these to develop courses of action, which are possible ways to accomplish his mission.

(a) *Commander's Intent*. The commander's intent is a clear, concise statement of what the force must do to succeed with respect to the enemy, terrain, and desired end state. It provides the link between the mission and the concept of operations by stating the key tasks that, along with the mission, are the basis for subordinates to exercise disciplined initiative when unanticipated opportunities arise or when the original concept of operation no longer applies. Key tasks are those that must be performed by the unit or conditions that must be met to achieve the stated purpose of the operation. Key tasks are not tied to a specific course of action. They are not limited to "tactical tasks." The operation's tempo, duration and effect on the enemy, and the terrain that must be controlled, are examples of key tasks. The commander's intent does not include the method by which the force will get from its current state to the end state. The method is the concept of operations. Nor does the intent contain "acceptable risk." Risk is addressed

in courses of action. Figure 2-11 shows an example of key tasks related to enemy, terrain, and desired end state. An example of commander's intent follows.

> **Commander's Intent**: *All enemy forces on OBJ ATLANTA destroyed; company controls west side of Bush Hill; company is in defensive posture NLT 011400 OCT __, able to defeat enemy CATK in EA RED; TF 2-99 IN (M) passed through CP2 without significant delay.*

KEY TASKS IN RELATION TO--		
Enemy: • All enemy forces on OBJ ATLANTA destroyed. • Enemy forces fixed in EA DOG. • Enemy reconnaissance forces destroyed prior to reaching PL DOG. • Enemy unable to mass greater than one MRP against the Company ME.	**Terrain**: • Company controls west side of Bush Hill NLT 010600OCT__. • Major chokepoints along RT BLUE cleared of obstacles and enemy forces. • Company reaches PL DOG NLT 010400OCT__.	**Desired End State**: • Company in defensive posture NLT 011400OCT__, able to destroy enemy counterattack in EA RED. TF 2-99 IN (M) passed through CP2 without significant delay.

Figure 2-11. Example of key tasks related to enemy, terrain, and desired end state.

(b) *Risk Assessment*. Risk assessment is the identification and assessment of hazards that allows a commander to implement measures to control hazards. (Refer to Appendix E for a detailed discussion of risk management and Appendix F for a discussion of fratricide avoidance.) Identification and assessment are the first two steps of the risk management process. Risk management is conducted to protect the force and increase the chance of mission accomplishment. The commander must consider two kinds of risk: tactical and accident. Tactical risk is associated with hazards that exist due to the presence of the enemy on the battlefield. The consequences of tactical risk take two major forms:

- Enemy action in an area where the leader has accepted risk (such as an enemy attack where the friendly commander has chosen to conduct an economy of force).
- Lost opportunity (such as moving across severely restricted terrain and then being unable to mass effects of combat power because of inability to traverse the terrain rapidly).

Accident risk includes all operational risk considerations other than tactical risk and can include activities associated with hazards concerning friendly personnel, equipment readiness, and environmental considerations. Fratricide and the inability to complete a planned air movement because of weather conditions are two examples of accident risk. The leader must identify risks based on the results of his mission analysis, decide which risks he is willing to accept, and incorporate measures that abolish or mitigate the consequences of the identified risks into his courses of action.

2-9. ISSUE A WARNING ORDER

After the company commander has determined his unit's mission and assessed the time available for planning, preparing for, and executing the mission, he should immediately issue a warning order to his subordinates. In addition to telling his subordinates of the company's new mission, the warning order also gives them his planning time line. He also may communicate any other instructions or information that he thinks will assist them in preparing for the new mission. This includes any information on the enemy and the nature of the higher headquarters' overall plan and any specific instructions or rehearsal tasks for preparing subordinate units for the mission. The most important thing is not to waste any time in issuing the initial warning order. If and when more information becomes available, he can--and should--issue additional warning orders. By issuing the initial warning order as quickly as possible, he enables his subordinates to begin their own planning and preparation (parallel planning) while he begins to develop the OPORD.

2-10. MAKE A TENTATIVE PLAN

In a time-constrained environment, a company commander typically will develop only one course of action; however, as time permits, he may develop as many courses of action as possible to allow comparison. He will begin this step of the TLP after he issues his warning order and after he has received higher headquarters' third warning order. He does not need to wait for a complete OPORD from the higher headquarters before beginning his own course of action development. The SBCT infantry company commander must take advantage of the tactical internet to communicate his COA through imagery, graphics, and relevant information.

a. **Course of Action Development.** The purpose of course of action development is to determine one or more ways to accomplish the mission that are consistent with the immediate higher commander's intent. A COA describes how the unit might generate the effects of overwhelming combat power against the enemy at the decisive place with the least friendly casualties. Each COA the company commander develops must be detailed enough to clearly describe how he envisions using all of his assets and combat multipliers to achieve the company's mission-essential task and purpose. To develop a COA, he focuses on the actions the company must take at the decisive point and works backward to his start point. He should develop several COAs if time permits. A legitimate COA must be--

- Suitable. If successfully executed, the COA will accomplish the mission consistent with the higher commander's concept and intent.
- Feasible. The unit has the technical and tactical skills and resources to successfully accomplish the COA.
- Acceptable. The COA minimizes friendly casualties.
- Distinguishable. Each COA must be sufficiently different from the others to justify full development and consideration.
- Complete. The COA must cover the operational factors of *who*, *what*, *when*, *where*, and *how* and address the mission from its start point to its conclusion.

The COA also must address the doctrinal aspects of the mission. For example, in an attack against a defending enemy, the COA must address the movement to, deployment against, assault of, and consolidation upon, the objective.

(1) ***Analyze Relative Combat Power.*** The purpose of this step is to compare combat power of friendly and enemy forces. It is not merely a calculation and comparison of friendly and enemy weapons numbers or units with the aim of gaining a numerical advantage. Using the results of all previous analyses done during mission analysis, the company commander compares his unit's combat power strengths and weaknesses with those of the enemy. He seeks to calculate the time and manner in which his force (and the enemy) can maximize the effects of maneuver, firepower, protection, leadership, and information in relation to the specific ground, disposition, and composition of each force. In short, he is trying to determine where, when, and how his unit's combat power (the effects of maneuver, firepower, protection, leadership, and information) can overwhelm the enemy's ability to generate combat power. Where and when this occurs is, of course, the decisive point. Using a relative combat power analysis (RCPA) matrix is a technique to assist in organizing his analysis (Figure 2-12). The matrix allows him to identify conclusions that he can apply to the development of his COA. The conclusions from his analysis of combat power are not COA specific, but rather apply to all COAs he may develop. Once he has completed his analysis of relative combat power, he attempts to determine a decisive point (if he has not done so already). He does this by considering the unit's mission, the terrain, and the enemy, seeking to find a place in time or space where he can focus overwhelming combat power to accomplish the unit's assigned purpose. He must understand the strengths and vulnerabilities of his unit and the enemy. The RCPA, as a tool, should lead him to a better understanding of when, where, and how to apply his combat power to exploit a weakness or relative weakness of the enemy. This process points the way to a potential decisive point, tactics, or techniques to be used when generating options.

Combat Power	Friendly Strengths	Enemy Weaknesses	Friendly Weaknesses	Enemy Strengths	Conclusions	Tactics Techniques
Maneuver						
Firepower						
Protection						
Leadership						
Information						

Figure 2-12. Relative combat power analysis (RCPA) matrix.

(2) ***Generate Options.*** The company commander first determines the doctrinal requirements for his particular operation. These also may include the doctrinal tasks to be assigned to subordinate units. For example, a breach requires an assault force, a support force, a breach force, and possibly a reserve. This doctrinal requirement provides a framework for the commander to develop a COA. Next he determines his decisive point. If he has not done so earlier in the TLP, he must determine his decisive point during this step in order to proceed. Once he has determined his decisive point, he identifies the main effort's purpose and the purposes of his supporting efforts. The main effort's purpose is nested to his unit's overall purpose and is achieved at his decisive point. The supporting efforts' purposes are nested to the main effort's purpose by setting the conditions for

success of the main effort. He then determines the mission-essential tactical tasks for the main and supporting efforts. These tasks are those that must be accomplished to achieve the subordinate units' given purposes.

(3) ***Array Initial Forces.*** He must then determine the specific quantity of weapons (by type) and fire support necessary to accomplish each task against the enemy array of forces. He must ensure that he has sufficient combat power to accomplish the assigned task. He allocates resources required for the main effort's success first and then determines the resources needed for supporting efforts in descending order of importance.

> **EXAMPLE**: The main effort in an attack of a strongpoint may require three rifle squads and an engineer squad to seize a foothold, whereas a support-by-fire force may require four squads and one MGS vehicle. This array relies on an accurate assessment in the relative combat power analysis (step 1).

(4) ***Develop Schemes of Maneuver.*** The scheme of maneuver is a description of how the company commander envisions the COA unfolding from its start to its conclusion or end state. He clarifies in his mind the best ways to use the available terrain and to employ the unit's strengths against the enemy's weaknesses. He includes the requirements of indirect fire to support the maneuver. He then develops the maneuver control measures necessary to convey his intent, to enhance the understanding of the schemes of maneuver, to prevent fratricide, and to clarify the tasks and purposes of the main and supporting efforts. He also determines the CS and CSS aspects of the COA. One technique is to overlay his scheme of maneuver onto the SITEMP digitally. As control measures become necessary, he places them on his maneuver overlay. This now becomes the basis for his COA sketch that he can distribute to his subordinates.

(5) ***Assign Headquarters.*** He assigns specific subordinate elements as the main and supporting efforts. He ensures that he has employed every unit in his command and every asset that has been attached and that he has provided for adequate command and control of each element. The company commander must avoid unnecessarily complicated command and control structures.

(6) ***Prepare COA Statements and Sketches.*** He bases the COA statement on the scheme of maneuver that he has already developed. The statement focuses on all significant actions from the start of the COA to its finish. His ability to prepare COA sketches and statements depends on the amount of time available as well as his skill and experience with weapons systems within the company. He should, whenever possible, prepare a sketch showing each COA (if more than one has been developed). Another useful technique is to show the time it takes to achieve each movement and task in the COA sketch to gain an appreciation for the relative accumulation of time as the course of action is executed. The COA statement should state his decisive point and why it is decisive, the form of maneuver or the defensive technique, the tasks and purposes of his main and supporting efforts, the task and purpose of critical BOS elements, and an end state.

b. **Course of Action Analysis.** After developing the COA, the commander analyzes it to determine its strengths and weaknesses; to visualize the flow of the battle; to identify the conditions or requirements necessary to enhance synchronization; and, most significantly, to gain insights into actions at the decisive point of the mission. If he has developed more than one COA, he applies this same analysis to each COA developed. He does this analysis through war-gaming or "fighting" the COA against at least one enemy COA.

(1) ***War-Gaming.*** When time permits, he war-games each friendly COA against the most probable enemy COA. War-gaming, depending on how much time is devoted to it, provides the following:

- An appreciation for the time, space, and triggers needed to integrate fire support, smoke, engineers, ADA, and NBC with maneuver platoons (infantry, antiarmor, or tank) to support unit tasks and purposes identified in the scheme of maneuver.
- Flexibility built into the plan by gaining insights into possible branches to the basic plan.
- The need for control measures (such as checkpoints, contact points, and target reference points [TRPs]) that facilitate control, flexibility, and synchronization.
- Coordinating instructions to enhance execution and unity of effort and to mitigate confusion between subordinate elements.
- Information needed to complete paragraphs 3, 4, and 5 of the OPORD.
- Assessments regarding on-order and be-prepared missions.
- Projected CSS expenditures, friendly casualties, and resulting medical requirements.

(2) ***War-Gaming Techniques.*** Depending on the time available and his personal preference, the company commander may use any of the following war-gaming techniques--

(a) *Box Technique*. The box technique focuses the war game on a specific area of the battlefield. This may be the objective area, the engagement area, or some other critical location where decisive or critical actions will take place. It should include all of the units, friendly and enemy, that will have a direct impact on those actions. This technique is a good one to use when time is limited and the enemy situation is relatively clear. However, a key disadvantage is that when considering only the actions at the critical or decisive points, the company commander may overlook other actions or events that could have a significant impact on the unit’s mission.

(b) *Belt Technique*. The belt technique allows him to divide the COA into events or belts. He may do this in several ways, such as from phase line to phase line or by significant event. Each step then is war-gamed in sequence. This approach is most effective for offensive COAs. The company commander can modify this technique by dividing the battlefield into belts that are not necessarily adjacent or overlapping but focus on the critical actions throughout the area of operations.

(c) *Avenue-in-Depth Technique*. This method is most effective for a defensive COA, especially when there are several avenues of approach to consider. Using the enemy's most probable COA, he analyzes friendly and enemy actions along one avenue of approach at a time.

(3) ***War-Gaming Guidelines.*** To gain the benefits that result from war-gaming a COA, the company commander must remain objective and record the results of the war game. He must remember the assumptions he made about the enemy, his unit, and the ground during the development of his tentative plan. He must avoid letting the enemy or his unit "win" to justify the COA. Additionally, he must avoid drawing premature conclusions about the war game or making changes to his COA until the war game is complete.

c. **Course of Action Comparison and Selection.** If the company commander has developed more than one COA, he must compare them by weighing the specific advantages, disadvantages, strengths, and weaknesses of each COA as noted during the war game. These attributes may pertain to the accomplishment of the unit purpose, the use of terrain, the destruction of the enemy, or any other aspect of the operation that he believes is important. He uses these factors, gained from his RCPA matrix, as his frame of reference in tentatively selecting the best COA. He makes the final selection of a COA based on his own judgment, the start time of the operation, the area of operations, the scheme of maneuver, and subordinate unit tasks and purposes.

d. **Commander's Critical Information Requirements.** The CCIR identify and filter information needed by a commander to support his visualization and to make critical decisions, especially to determine or validate courses of action. They help him determine what is relevant to mission accomplishment. In one technique, he writes the desired question, the quantified answer, and the reaction (critical decision to make). CCIR also help focus the efforts of his subordinates and assist in the allocation of resources. CCIR should be kept to what is absolutely essential.

(1) ***Priority Intelligence Requirements.*** PIR is information that a commander needs to know about terrain or enemy in order to make a critical decision. PIR are best expressed in a question that can be answered with a "Yes" or "No."

> **EXAMPLE**: Can enemy wheeled vehicles cross the creek at NU12345678? If yes, the company will reinforce the obstacle and establish an antiarmor ambush at this location. If no, the company will emplace an OP then establish the antiarmor ambush along another route.

(2) ***Friendly Forces Information Requirements (FFIR).*** This is information that a commander needs to know about his unit or adjacent units to make a critical decision.

> **EXAMPLE**: I want to know when we have lost one MGS because I will need to supplement the remaining direct fires of the support element with additional mortar fires.

2-11. INITIATE MOVEMENT

The company commander initiates any movement necessary to continue mission preparation or to posture the unit for the start of the mission. This step can be executed at

any time throughout the sequence of the TLP. This may include movement to an assembly area, a battle position, a new area of operation, or the movement of guides or quartering parties.

2-12. CONDUCT RECONNAISSANCE

In order to exploit the principles of speed and surprise, the company commander should weigh the advantage gained by personal reconnaissance versus the combat multiplier received in the form of supplied information via FBCB2. The commander may have the ability to plan his operation based upon the unprecedented amount of combat information provided by the RSTA squadron and by the other information collection sources. However, if time permits, he should verify higher headquarters' intelligence with visual reconnaissance. His reconnaissance should seek to confirm the PIR that support his tentative plan. These PIR are usually assumptions or critical facts concerning the enemy (his location, especially templated positions, and strength) and the terrain (verification, for example, that a tentative support-by-fire position actually will allow for suppression of the enemy or that an avenue of approach will be useable).

a. If possible, he should include his subordinate leaders in this reconnaissance. This allows them to see as much of the terrain and enemy as possible. The reconnaissance also helps subordinate leaders to gain insight into his visualization of the operation.

b. The leader's reconnaissance may include moving to or beyond the line of departure (LD) or walking from the forward edge of battle area (FEBA) back to and through the company area of operation or battle position along likely enemy avenues of approach. If possible, he should select a vantage point that provides the group with the best possible view of the decisive point.

c. In addition to the leader's reconnaissance, the unit may conduct additional reconnaissance operations. Examples include surveillance of an area by subordinate elements, patrols to determine where the enemy is (and is not) located, and establishment of observation posts to gain additional information. The commander may also incorporate the Javelin CLU as a surveillance tool (day or night), based on an analysis of the factors of METT-TC.

d. The nature of the reconnaissance, including what it covers and how long it lasts, depends on the tactical situation and the time available. The company commander should use the results of the COA development process to identify information and security requirements for the unit's reconnaissance operations.

2-13. COMPLETE THE PLAN

During this step, the company commander takes his selected (or refined) COA and expands it into a complete OPORD. He prepares overlays, refines the indirect fire list, completes CSS and C2 requirements and, of course, updates the tentative plan based on the latest reconnaissance or information. He prepares a briefing site and other briefing materials he may need to present the OPORD directly to his subordinates. Finally, he makes final coordination with other units or staff members before issuing the order to his subordinates. The five-paragraph OPORD format helps him paint a complete picture of all aspects of the operation: terrain, enemy, higher and adjacent friendly units, unit mission, execution, support, and command and control. The format also assists him in

addressing all relevant details of the operation. It provides subordinates with a smooth flow of information from beginning to end.

2-14. ISSUE THE OPORD

The OPORD precisely and concisely explains both his intent and concept of how he envisions the unit accomplishing the mission. The order does not contain unnecessary information. Nice-to-know information clouds what is essential and important and often causes confusion and uncertainty.

a. When issuing the OPORD, he must ensure his subordinates understand and share his vision of what must be done and when and how it must be done. They must understand how all the company's elements work together to accomplish the mission. They must also understand how the company's mission supports the intentions of the immediate higher commander. When he has finished issuing the order, subordinate leaders should leave with a clear understanding of what the company commander expects their elements to do.

b. Additionally, and in many respects more importantly, the company commander must issue the order in a manner that imbues his subordinates with confidence in the plan and a commitment to do their best to achieve the plan. Whenever possible, he must issue the order in person, looking into the eyes of his soldiers, to ensure each subordinate leader understands his mission and what his element must achieve.

c. Complete the order with an initial backbrief utilizing the initial warning order issued in step 2 of the TLP. Each subordinate leader should be able to backbrief the unit mission and intent, the immediate higher commander's intent, his own task and purpose, and the time he will issue his unit's OPORD.

2-15. SUPERVISE AND OR REFINE

This final step of the TLP is crucial. After issuing the OPORD, the company commander and his subordinate leaders must ensure that the required activities and tasks are completed in a timely manner prior to mission execution. Supervision is the primary responsibility of all leadership. It is imperative that both officers and NCOs check everything that is important for successful mission accomplishment. This includes but is not limited to--

- Listening to subordinate operation orders.
- Observing rehearsals of subordinate units.
- Checking load plans to ensure they are carrying only what is necessary for the mission.
- Checking the status and serviceability of weapons.
- Checking on maintenance activities of subordinate units.
- Ensuring local security is maintained.

CHAPTER 3
MOVEMENT

The purpose of tactical movement is to move SBCT units on the battlefield and prepare them for contact. This chapter focuses on the movement techniques, formations, and dismounted transition points that, in combination, provide the SBCT company commander with options for moving his unit. The various techniques and formations have unique advantages and disadvantages. Some movement techniques are secure but slow while others are faster but less secure. Some formations work well in certain types of terrain or tactical situations but are less effective in others. Because of the capabilities of the SBCT infantry company, the commander must consider the overall mounted and dismounted movement plan, to include where, when, and how he will transition between the two. None of the movement techniques or formations described in this section should be considered inflexible or immutable. The company commander must be prepared to adapt them to the situation at hand.

3-1. TACTICAL MOVEMENT AND ENEMY CONTACT

Do not confuse movement with maneuver. *Maneuver* is defined as movement supported by fire to gain a position of advantage over the enemy. At company level, there is considerable overlap between the two. Tactical movement differs from maneuver, however, in that maneuver is movement while in contact, but tactical movement is movement in preparation for contact. The process by which units transition from tactical movement to maneuver is called "actions on contact." Actions on contact are covered in Section IV of Chapter 4. Figure 3-1, page 3-2, illustrates the relationship between movement techniques (traveling, traveling overwatch, and bounding overwatch), the possibility of enemy contact, and transition to maneuver.

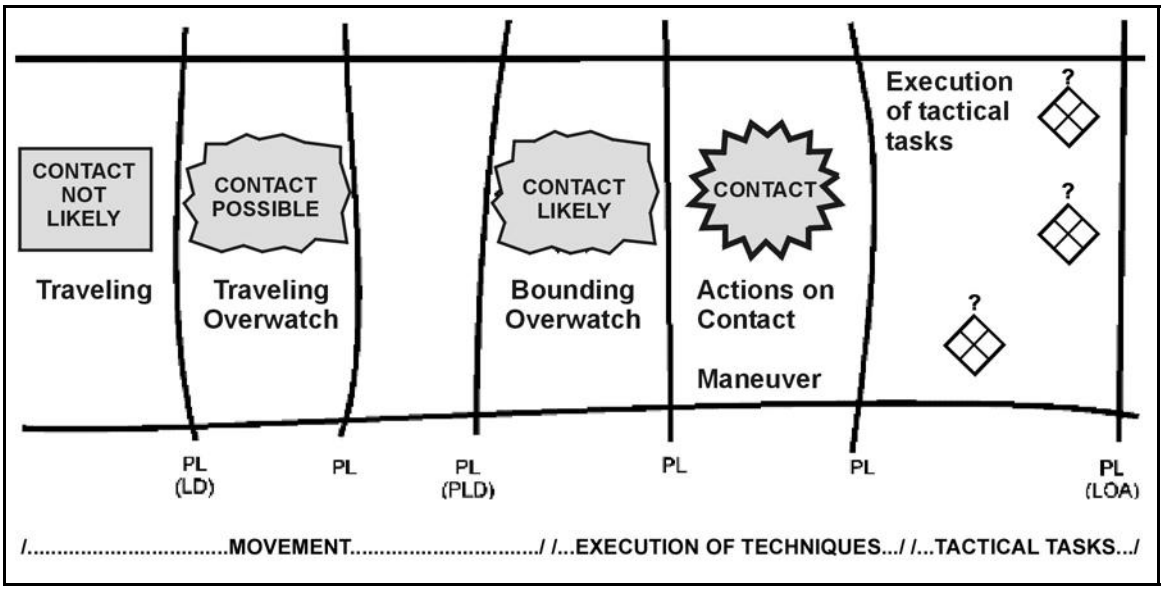


Figure 3-1. Transition from movement techniques to maneuver.

3-2. MOVEMENT TECHNIQUES

The SBCT infantry company commander selects from the three movement techniques based on several battlefield factors:

- The likelihood of enemy contact.
- The type of contact expected.
- The availability of an overwatch element.
- The terrain over which the moving element will pass.
- The balance of speed and security required during movement.

See Figure 3-2 for a legend of symbols for company personnel and elements.

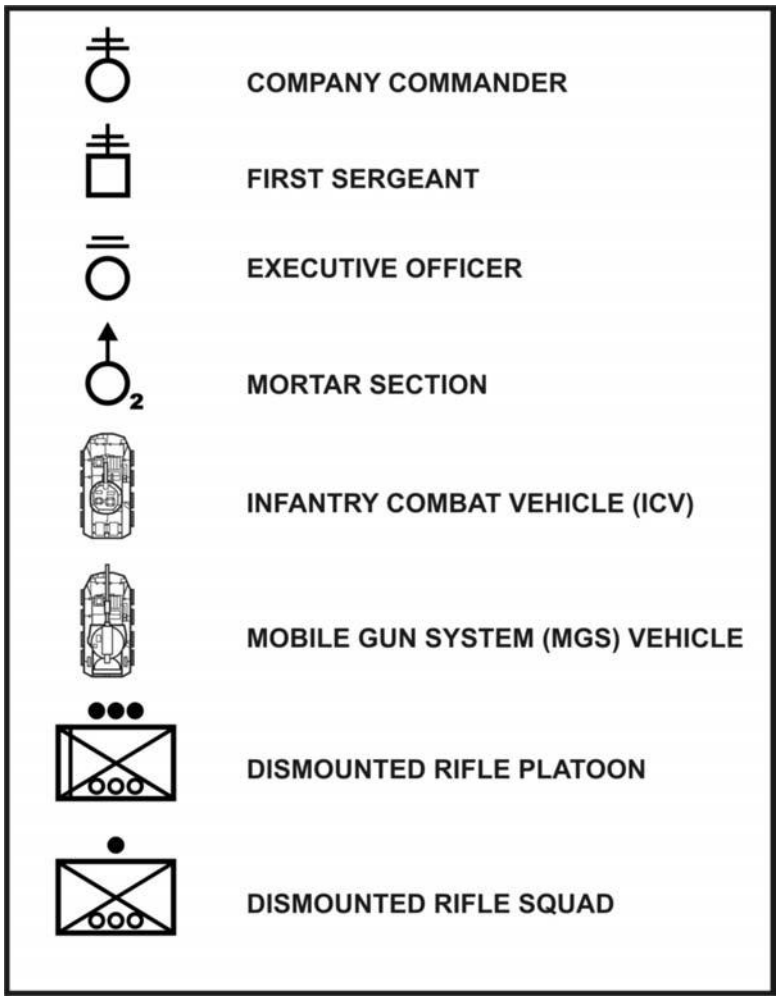


Figure 3-2. Legend of company symbols.

a. **Traveling.** Traveling is characterized by continuous movement by all company elements. It is best suited to situations in which enemy contact is unlikely and speed is important. Figures 3-3 and 3-4, page 3-4, illustrate the traveling technique, dismounted and mounted.

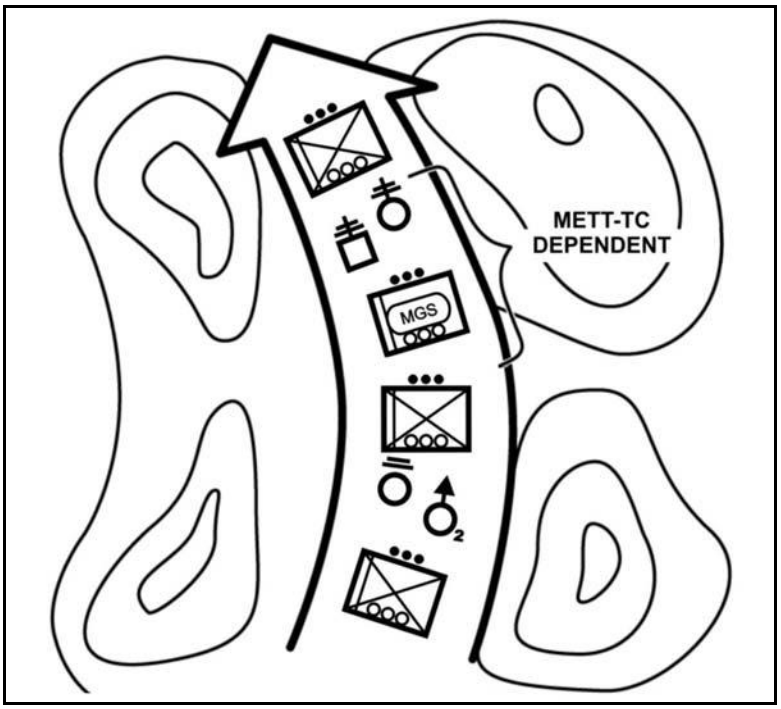


Figure 3-3. Traveling dismounted.

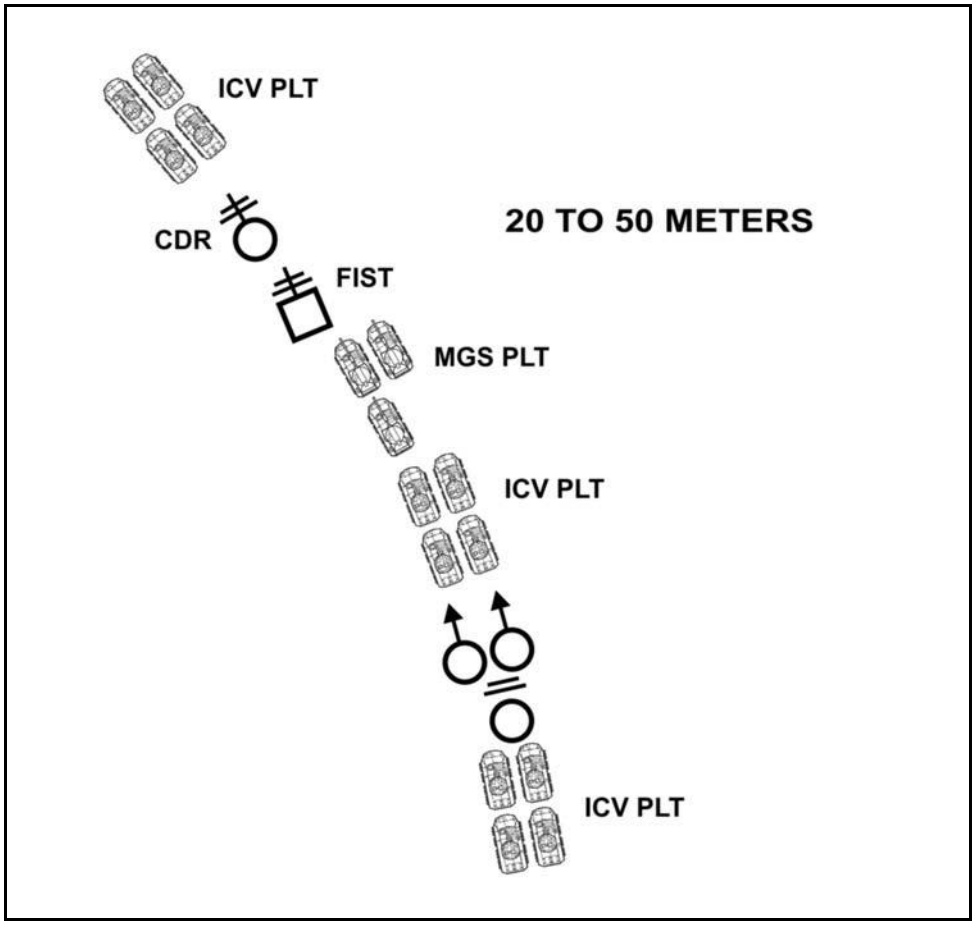


Figure 3-4. Traveling mounted.

b. **Traveling Overwatch.** This is an extended form of traveling that provides additional security when speed is desirable but contact is possible. The lead element moves continuously. The trail element moves at various speeds and may halt periodically to overwatch movement of the lead element. Dispersion between the two elements must be based on the trail element's ability to see the lead element (visually or digitally) and to provide immediate suppressive fires in case the lead element is engaged. The intent is to maintain depth, provide flexibility, and maintain the ability to maneuver even if contact occurs, although a unit ideally should make contact while moving in bounding overwatch rather than traveling overwatch. Figure 3-5 and Figure 3-6, page 3-7, illustrate traveling overwatch, dismounted and mounted.

NOTE: Organization of the company in both traveling overwatch and bounding overwatch consists of a lead element (also called the bounding element in bounding overwatch) and a trail (or overwatch) element. The commander constitutes these elements using varying combinations of company elements; his decision must be based on the results of his METT-TC analysis. For example, the lead element might be one platoon and the XO's vehicle, overwatched by the two remaining platoons, the commander, and the FSO.

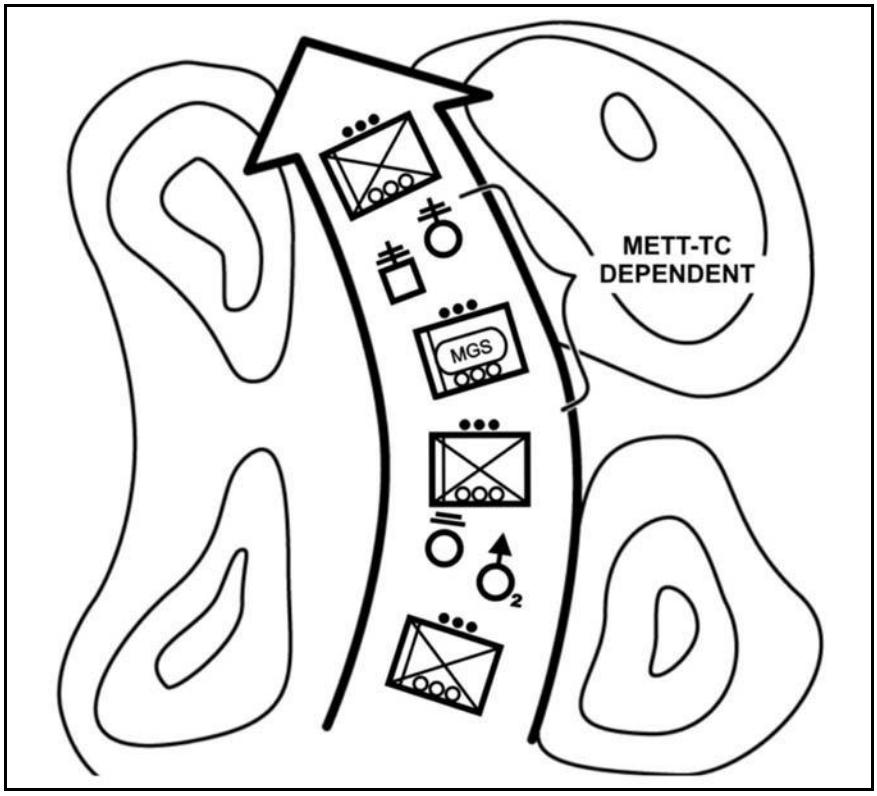


Figure 3-5. Traveling overwatch dismounted.

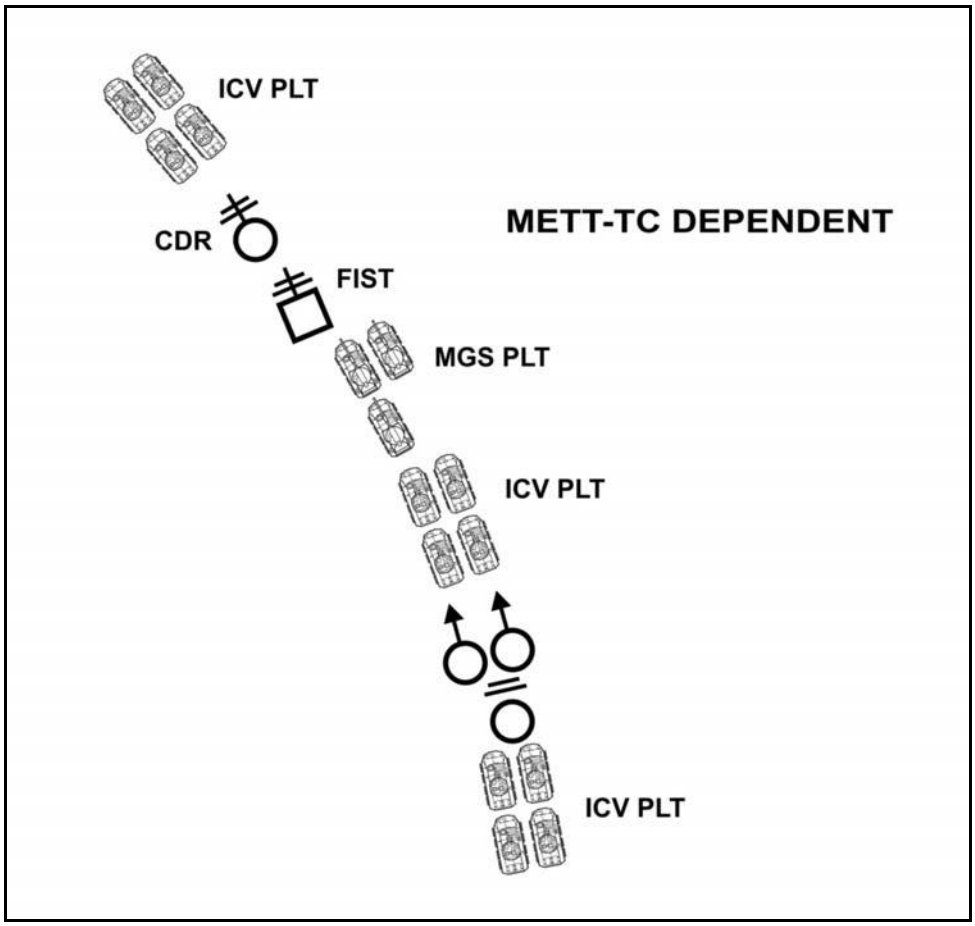


Figure 3-6. Traveling overwatch mounted.

c. **Bounding Overwatch.** Bounding overwatch is used when contact is expected. It is the most secure, but slowest, movement technique. The purpose of bounding overwatch is to deploy prior to contact, giving the unit the ability to protect a bounding element by immediately suppressing an enemy force. In all types of bounding, the overwatch element is assigned sectors to scan while the bounding element uses terrain to achieve cover and concealment. The bounding element should avoid masking the fires of the overwatch element; it must never move beyond the range at which the overwatch element can effectively suppress likely or suspected enemy positions. The company can employ either of two bounding methods, alternate bounds or successive bounds, which are discussed in the following paragraphs. Figure 3-7 and Figure 3-8, page 3-8, show the technique of bounding overwatch utilizing the MGS platoon, dismounted and mounted.

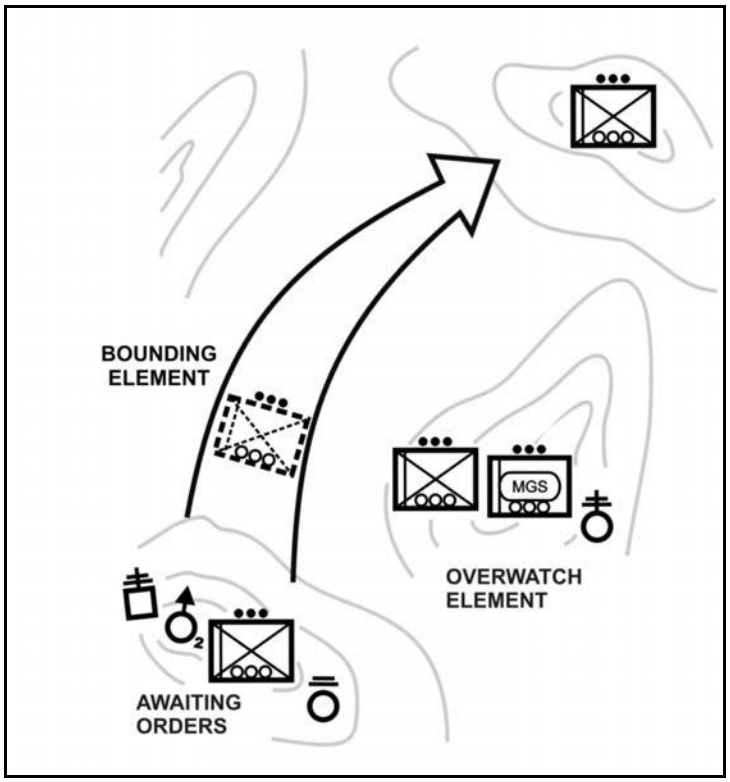


Figure 3-7. Bounding overwatch dismounted.

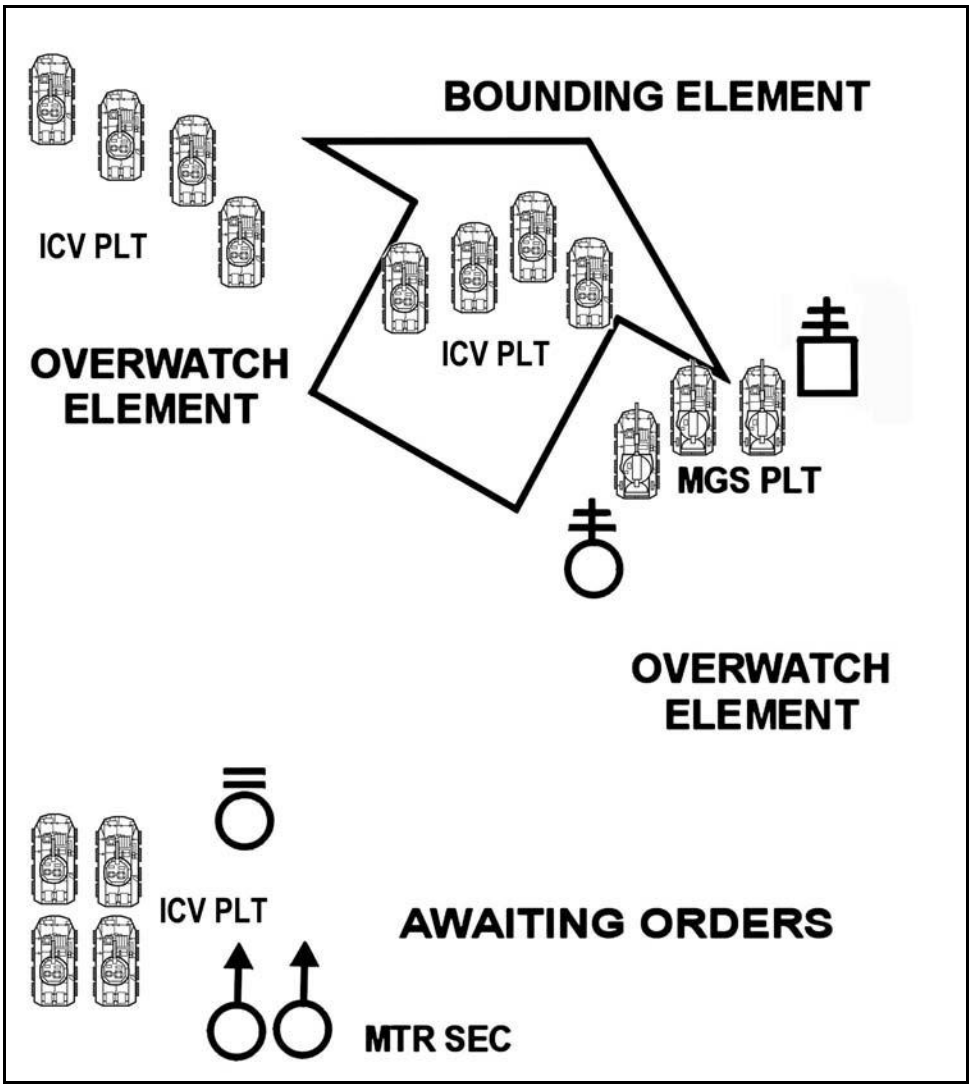


Figure 3-8. Bounding overwatch mounted.

(1) ***Alternate Bounds.*** Covered by the rear element, the lead element moves forward, halts, and assumes overwatch positions. The rear element advances past the lead element and takes up overwatch positions. This sequence continues as necessary, with only one element moving at a time. This method is usually more rapid than successive bounds.

(2) ***Successive Bounds.*** In the successive bounding method the lead element, covered by the rear element, advances and takes up overwatch positions. The rear element then advances to an overwatch position roughly abreast of the lead element and halts. The lead element then moves to the next position, and so on. Only one element moves at a time, and the rear element avoids advancing beyond the lead element. This method is easier to control and more secure than the alternate bounding method, but it is slower.

3-3. MOVEMENT FORMATIONS

The SBCT infantry company uses six basic movement formations: column, line, vee, wedge, file, and echelon right or left. These formations describe the locations of the company's platoons and sections in relation to each other. They are guides on how to

form the company for movement. Each formation aids control, security, and firepower to varying degrees.

a. **Considerations.** These formations can be used mounted or dismounted to control the company. Because of the limitations on the ICVs and MGS, the majority of mounted movement takes place on roads or unrestricted terrain.

(1) Whether mounted or dismounted, the best formation to use depends on the--

- Mission.
- Enemy situation.
- Terrain.
- Weather and visibility conditions.
- Speed of movement desired.
- Degree of flexibility desired.

(2) When moving cross-country, the distance between soldiers, vehicles, and platoons varies according to the terrain and the situation. Soldiers should constantly observe their sectors for likely enemy positions and look for cover that can be reached quickly in case of enemy contact.

(3) The company commander may specify the platoon formations to be used within the company formation. If he does not, each platoon leader selects his platoon's formation. For example, the lead platoon leader may select a formation that permits good observation and massing of fire to the front (vee formation). The second platoon leader may select a formation that permits fast movement to overwatch positions and good flank security (wedge formation). (Squad and platoon movement formations and techniques are discussed in FM 3-21.9 [FM 7-5].)

(4) When moving in a formation, the company normally guides on the base platoon to ease control. This should be the lead platoon. In the line or the vee formation, the company commander must specify which platoon is the base platoon. The other platoons key their speed and direction on the base platoon. This permits quick changes and lets the commander control the movement of the entire company by controlling only the base platoon. Terrain features may be designated for the base platoon to guide on, using the control techniques described in paragraph 3-5. The company commander normally locates himself within the formation where he can best see and direct the movement of the base platoon.

(5) One technique used to alert units for possible movement or for units to report their readiness to move is an alert status. With this technique, use a readiness condition (REDCON) system to reflect the amount of time a unit will have before it is required to move:

- REDCON 1: Be prepared to move immediately.
- REDCON 2: Be prepared to move in 15 minutes.
- REDCON 3: Be prepared to move in 1 hour.
- REDCON 4: Be prepared to move in 2 hours.

b. **Formations.** The following is a discussion of SBCT infantry company movement formations.

(1) ***Column.*** The column formation allows the company to make contact with one platoon and maneuver with the three trail platoons. It is a flexible formation, allowing easy transition to other formations. It provides good all-round security and allows fast movement. It also provides good dispersion and aids maneuver and control, especially

during limited visibility. The company can deliver a limited volume of fire to the front and to the rear, but a high volume to the flanks. Figures 3-9 and 3-10 depict company columns.

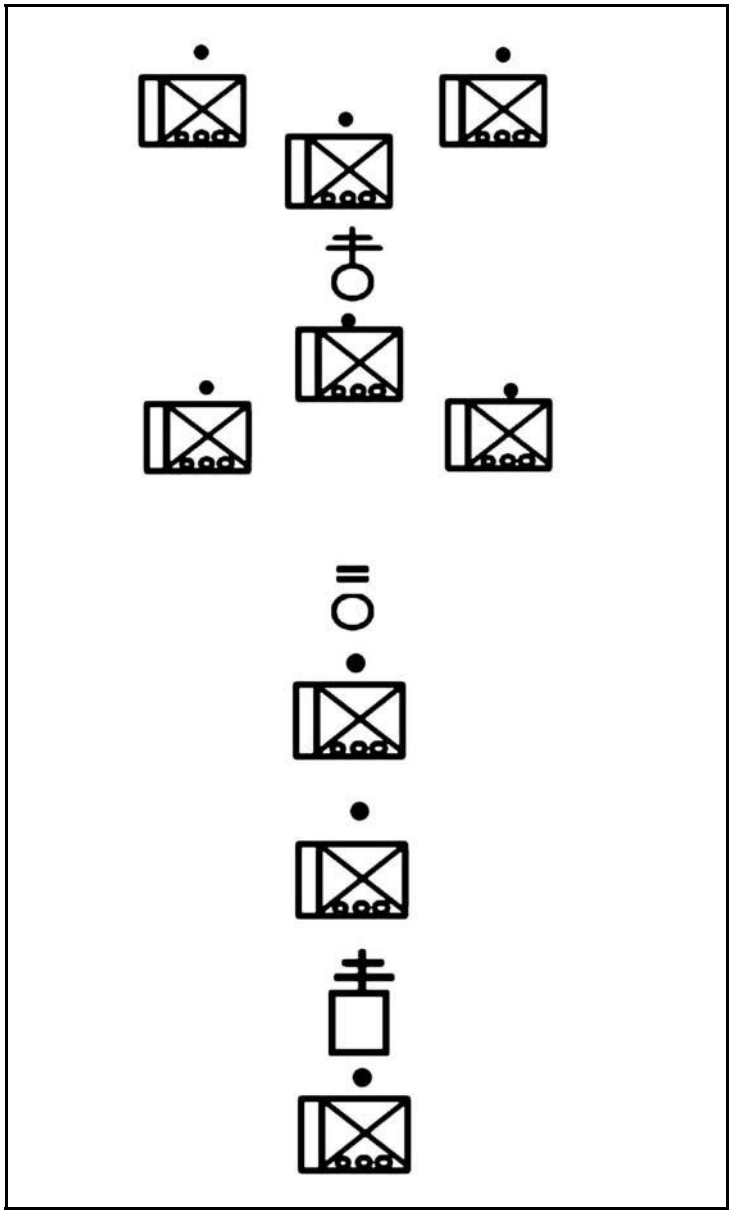


Figure 3-9. Company column dismounted.

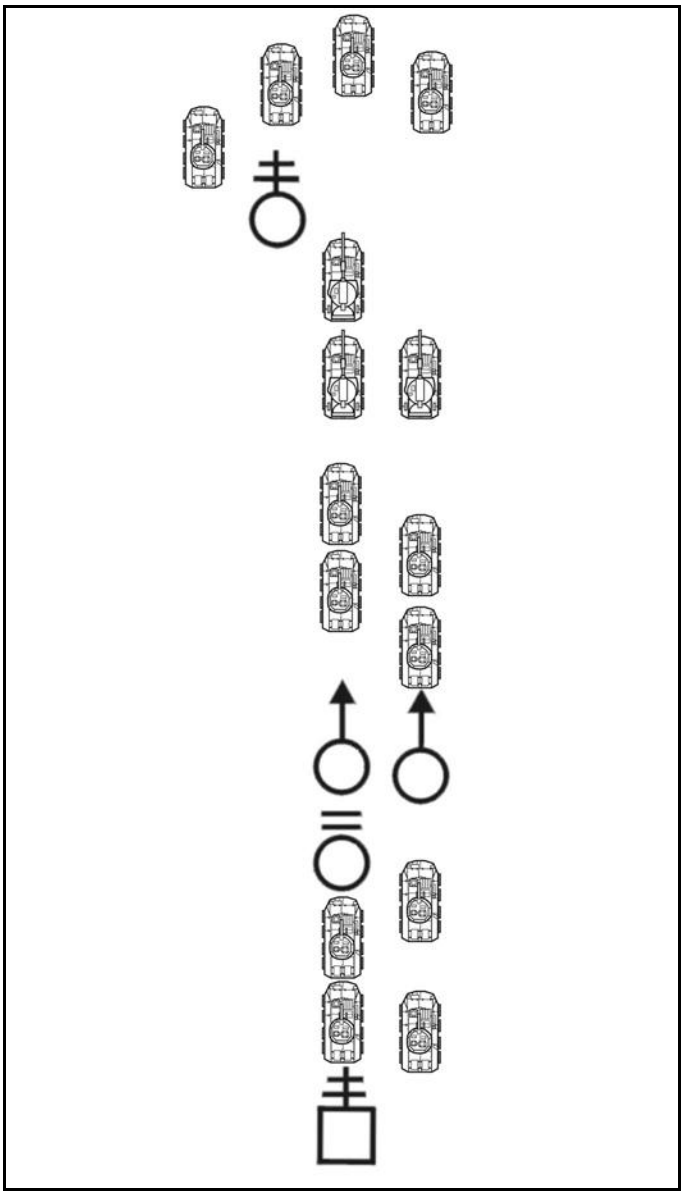


Figure 3-10. Company column mounted.

(2) ***Company Line.*** The company line formation puts all platoons forward along the same direction of movement and provides for the delivery of maximum fire to the front, but less to the flanks. It is the most difficult formation to control. The company commander should designate a base platoon (normally the center platoon) for the other platoons to guide on. Flank and rear security is generally poor but is improved when the flank platoons use echelon formations. Figures 3-11 and 3-12, page 3-12, depict examples of the company line.

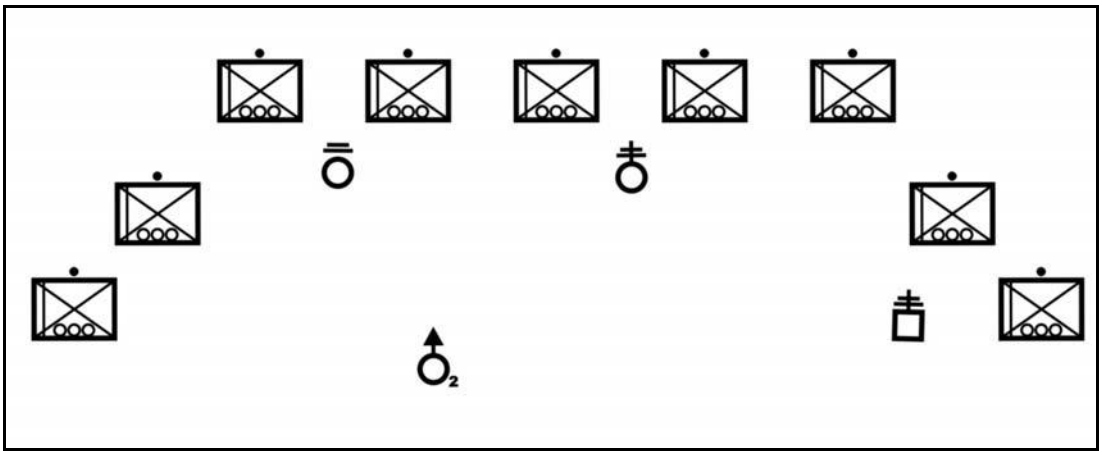


Figure 3-11. Company line dismounted.

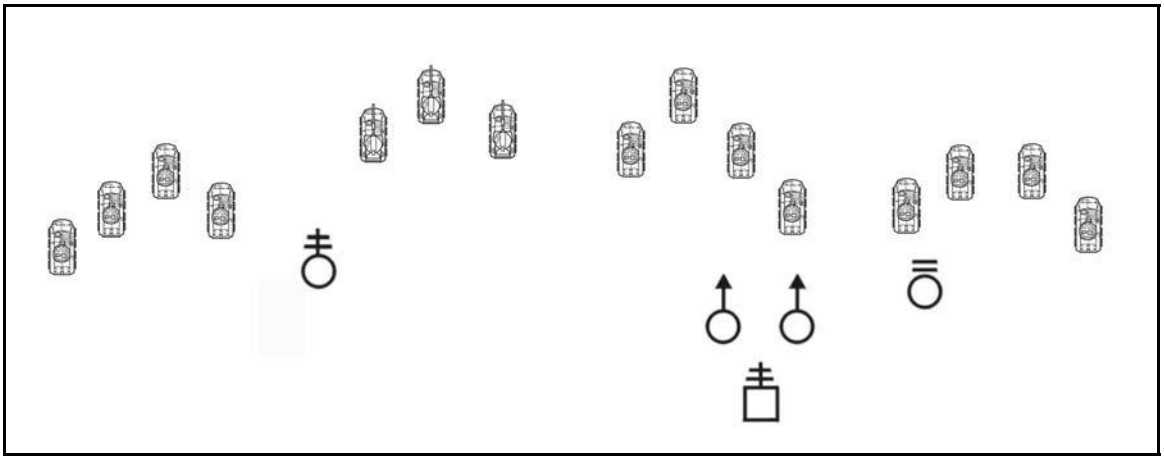


Figure 3-12. Company line mounted.

(3) ***Company Wedge.*** The company wedge formation allows the commander to make contact with a small element and still maneuver the remaining platoons. If the company is hit from the flank, one platoon is free to maneuver. This formation is hard to control, but it allows faster movement than the company vee formation. Figures 3-13 and 3-14 depict examples of the company wedge.

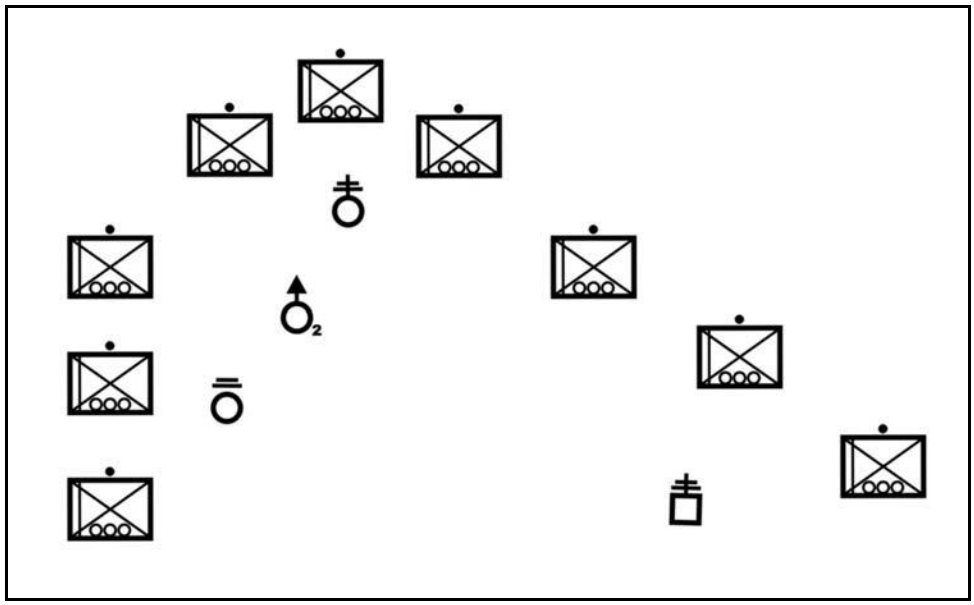


Figure 3-13. Company wedge dismounted.

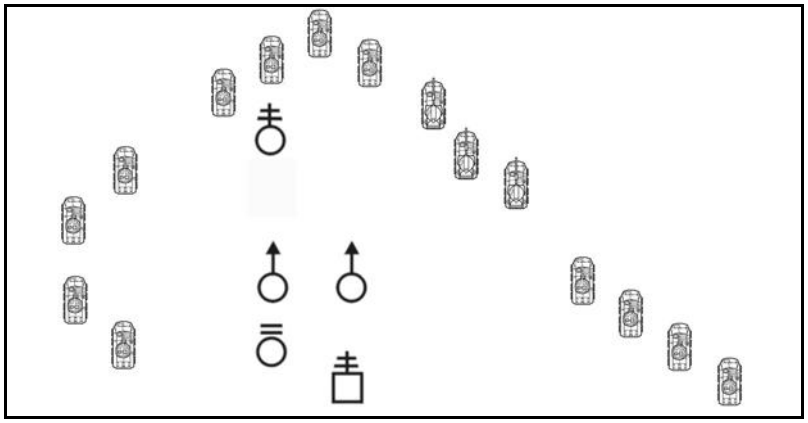


Figure 3-14. Company wedge mounted.

(4) ***Company Vee.*** The company vee formation has two platoons forward to provide immediate fire on contact or to flank the enemy. It also has one platoon in the center and one platoon in the rear. These platoons either overwatch or trail the lead platoons. If the company is hit from either flank, two platoons can provide fire, and at least one platoon is free to maneuver. This formation is hard to control and slows movement. The company commander designates one of the forward platoons as the base platoon. Figures 3-15 and 3-16, page 3-14, depict examples of the company vee with all platoons in wedge.

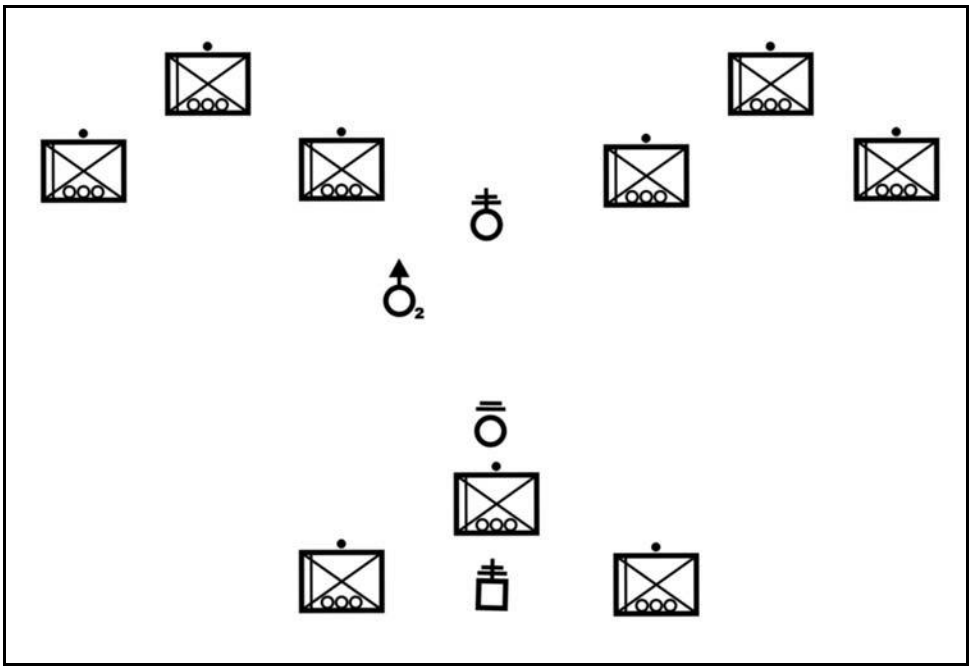


Figure 3-15. Company vee dismounted.

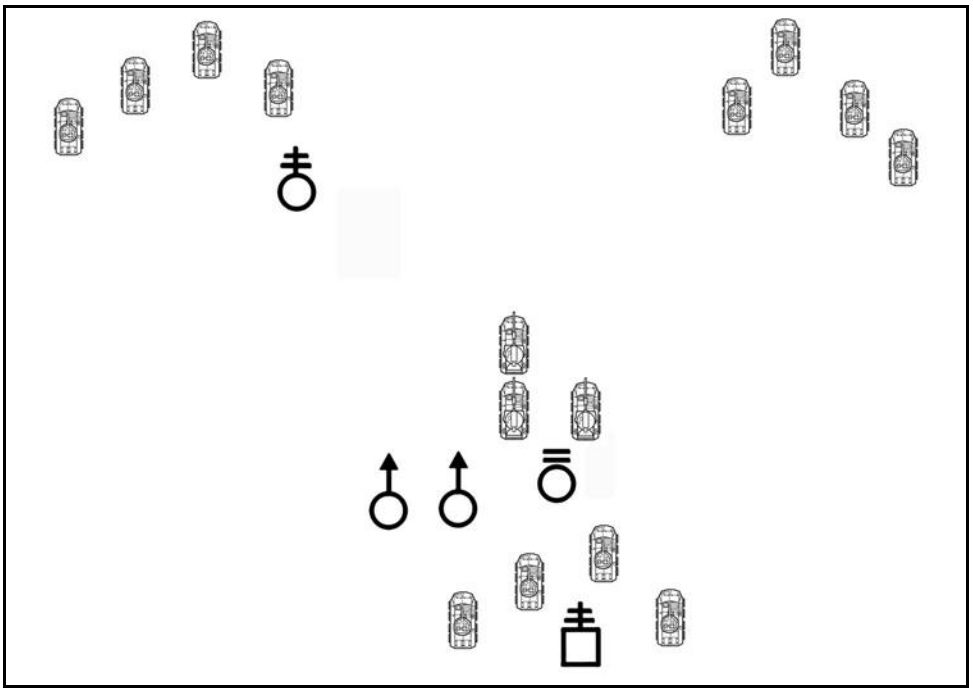


Figure 3-16. Company vee mounted.

(5) ***Company File.*** The company file formation is the easiest formation to control. It allows rapid movement in restricted terrain and during limited visibility, and it enhances control and concealment. It is, however, the least secure formation and the hardest from which to maneuver. Figure 3-17 and Figure 3-18, page 3-16, depict examples of the company file with all units in file.

(a) The company commander locates well forward with the lead platoon headquarters or immediately behind the lead security element. This location increases his control by putting him in position to make critical decisions. The company command post can locate farther back (behind the lead platoon) to avoid interfering with the platoon's movement and to aid communications with other elements.

(b) The 1SG (or XO) is last, or nearly last, in the company file to provide leadership and to prevent breaks in contact within the file.

(c) The company file is vulnerable to breaks in contact and should be used only when necessary and for short periods of time. Dismounted, a company stretches out over 600 meters in a company file, with a pass time of more than 20 minutes.

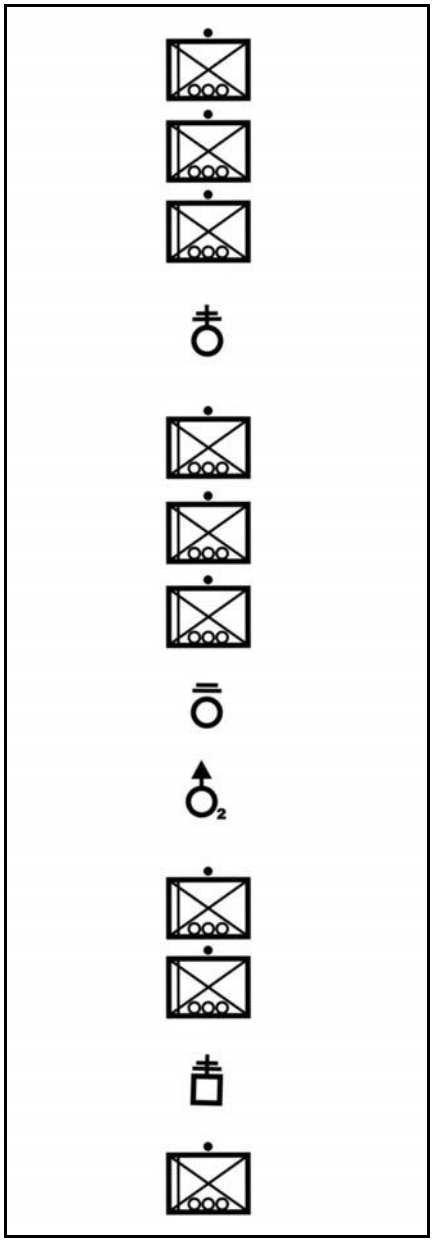


Figure 3-17. Company file dismounted.

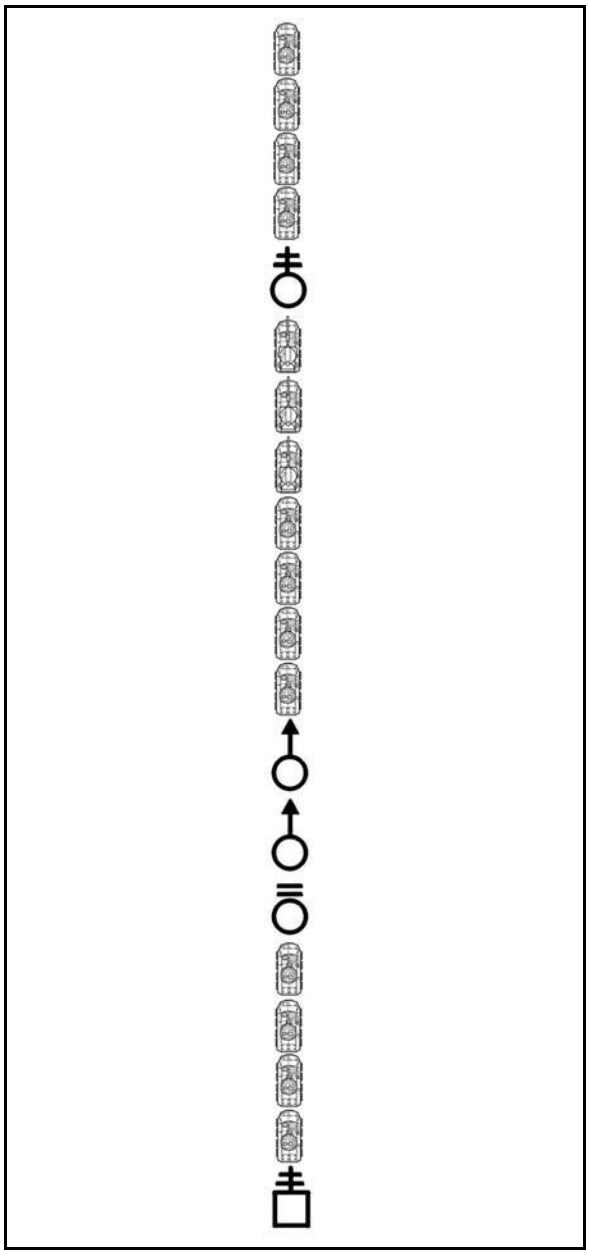


Figure 3-18. Company file mounted.

(6) ***Echelon Right or Left.*** The echelon right or echelon left formation is used if the situation is vague and the company commander anticipates enemy contact to the front or on one of the flanks. Normally, an obstacle or another friendly unit exists on the flank of the company opposite the echeloned flank, preventing enemy contact on that side. This formation provides a good volume of fire and protection to the echeloned flank, but less to the opposite flank. Figure 3-19 and Figure 3-20, page 3-18, depict examples of the echelon right formation.

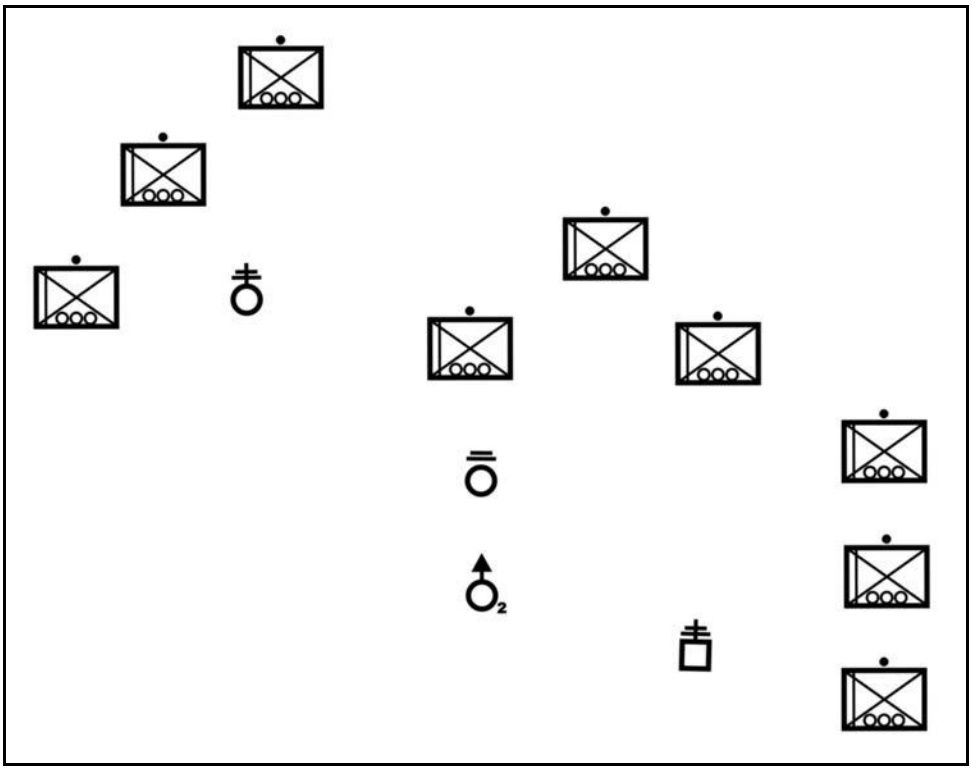


Figure 3-19. Echelon right dismounted.

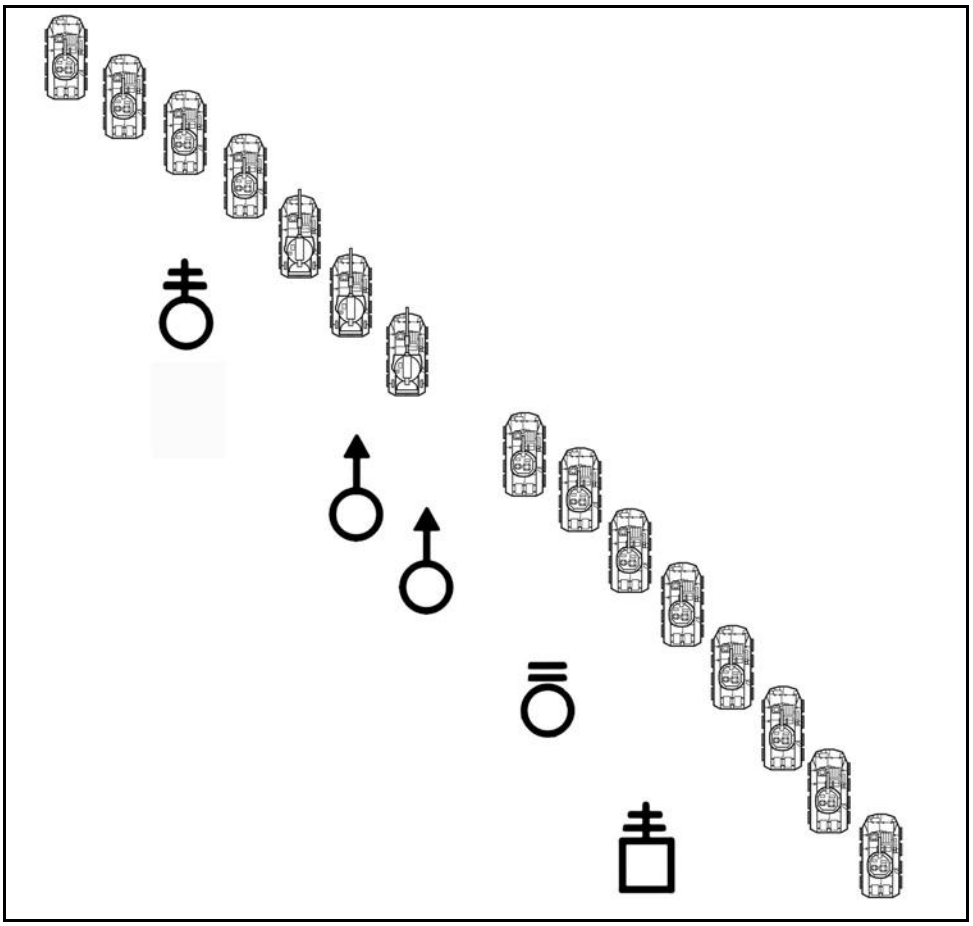


Figure 3-20. Echelon right mounted.

c. **Formation Selection.** The company commander selects the formation that provides the proper control, security, and speed. Table 3-1 provides a comparison of the six movement formations.

FORMATION	SECURITY	FIRES	CONTROL	SPEED
Column	• Good dispersion • Good 360° security	• Good to front and rear • Excellent to the flanks	• Easy to control • Flexible formation	• Fast
Line	• Excellent to the front • Poor to the flank and rear	• Excellent to the front • Poor to the flank and rear	• Difficult to control • Inflexible formation	• Slow
Wedge	• Good 360° security	• Good to the front and flanks	• Less difficult to control than the line • Flexible formation	• Faster than the line
Vee	• Better to the front	• Very good to the front	• Very difficult to control	• Slow
File	• Least secure • Effective use of concealment	• Poor	• Easy to control	• Fast
Echelon	• Good to the echeloned flank and front	• Good to the echeloned flank and front	• Difficult to control	• Slow

Table 3-1. Comparison of movement formations (mounted or dismounted).

3-4. USE OF MOVEMENT FORMATIONS

Movement should be as rapid as the terrain, the mobility of the force, and the enemy situation permit. The ability to gain and maintain the initiative often depends on undetected movement by the unit. If detected during movement, the enemy may be able to apply substantial combat power against the company. The SBCT infantry company depends heavily upon the terrain for protection from the enemy's fires. The company commander also protects his company during movement by ensuring the company is using proper movement formations and techniques.

a. **Fundamentals.** The SBCT infantry company commander's mission analysis and information gained through FBCB2 assist him in deciding how to move his unit most effectively. There is no set method for this. When planning company movements, the commander must ensure the unit is moving in a way that supports a rapid transition to maneuver. Once contact with the enemy is made, squads and platoons receiving effective fire execute the appropriate battle drills, and leaders begin to maneuver their units. The following fundamentals provide guidance for planning effective company movements.

(1) ***Conduct Reconnaissance.*** All echelons should conduct reconnaissance. The enemy situation and the available planning time may limit the unit's reconnaissance, but leaders at every level must aggressively seek information about the terrain and enemy. Primarily, this information about the terrain and enemy is gained through FBCB2. However, if sufficient information is still lacking, an effective technique is to send a reconnaissance element forward of the lead platoon. Even if this unit is only 15 minutes ahead of the company, it can still provide valuable information and reaction time for the company commander.

(2) ***Use the Terrain and Weather Effectively.*** One of the strengths of the SBCT infantry company is its ability to move across almost any terrain and in almost any

weather conditions. The company should move on covered and concealed routes. Moving during limited visibility may provide better concealment, and the enemy may be less alert during these periods. Plan to avoid identified danger areas.

(3) ***Move as Squads and Platoon.***. The advantages to moving the company by squads and platoons include--

- Faster movement.
- Better security. A small unit is less likely to be detected because it requires less cover and concealment.
- More dispersion. The dispersion gained by moving the company by squads and platoons makes it much more difficult for the enemy to concentrate his fires against the company, especially indirect fires, CAS, and chemical agents. Subordinate units also gain room to maneuver. Information sharing through the tactical internet makes this a plausible option.
- Better operational security (OPSEC). It is much more difficult for the enemy to determine what the friendly force is doing if all he has are isolated squad-size spot reports.

Although the advantages normally outweigh the disadvantages, when planning decentralized movements the commander should also consider the following disadvantages:

- Requires numerous linkups are required to regroup the company.
- May take longer to mass combat power to support a hasty attack or disengage in the event of enemy contact.

(4) ***Maintain Security during the Movement.*** A primary responsibility of the company commander is to protect his unit at all times. This is critical during movement because the company is extremely vulnerable to enemy direct and indirect fires. In addition to the fundamentals listed earlier, the company commander achieves security for the company by applying the following:

- Use the appropriate movement formation and technique for the conditions.
- Move as fast as the situation allows. This may degrade the enemy's ability to detect the unit and the effectiveness of his fires once he detects it.
- Ensure that subordinate units correctly position security elements to the flanks, front, and rear at a distance that prevents enemy direct fire on the main body. (Normally, the company formation and movement technique provides greater security to the front; it is the flanks and rear that must be secured by these security elements. The company SOP should state who is responsible for providing these security elements.)
- Enforce noise and light discipline (especially when dismounted).
- Enforce camouflage discipline (soldiers and their equipment).
- When the situation is not clear, make contact with the smallest element possible. By making contact with a small element, the company commander maintains the ability to maneuver with the majority of his force. The soldiers who first receive enemy fires are most likely to become casualties. They also are most likely to be suppressed and fixed by the enemy.
- When the situation is clear, the company commander must quickly mass the effects of his combat power to overwhelm the enemy.

b. **Locations of Key Leaders and Weapons.** The locations of key leaders and weapons depend on the situation, the movement formation and technique, and the organization of the SBCT infantry company. The following paragraphs provide guidance for the company commander in deciding where these assets should locate.

(1) ***Company Command Post.*** The company command post normally consists of the company commander, his RATELOs, the FIST, the communications specialist, the NBC sergeant, and possibly other personnel and attachments (XO, 1SG, or a security element). The company CP locates where it can best support the company commander and maintain communications with higher and subordinate units. To maintain communications, the mounted CP may need to locate away from the commander. In this case, the XO controls the CP (or part of it) and maintains communications with higher or adjacent units while the commander locates where he can best control the company. Although the CP can move independently, it normally locates where it is secured by the other platoons and sections within the company formation.

(2) ***Company Commander.*** The company commander locates where he can see and control the company. Normally, he positions the CP at his location, but at times he may move separate from the CP. If dismounted, he may take only his company net RATELO and travel with one of his platoons. This allows him to move with a platoon without disrupting their formation. Generally, the company commander (with the CP) operates immediately behind the lead platoon.

(3) ***Company Fire Support Officer.*** The company FSO normally moves with the company commander. At times, he may locate elsewhere to control indirect fires or relay calls for fire from the platoons.

(4) ***Company Mortars.*** The company mortars locate where they can provide responsive fires in case of enemy contact. They must locate where they gain security from the other units in the company. They normally are not last in the company formation because they have limited capability to provide security and their soldiers' loads, if dismounted, often make them the slowest element in the company.

(5) ***Other Attachments.*** The locations of other attachments depend on METT-TC. CS assets, such as engineers, are positioned where they can best support the company. For example, the engineers may follow the lead platoon where they can be more responsive.

(6) ***Infantry Carrier Vehicles, Mobile Gun Systems, and Other Vehicles.*** The SBCT infantry company's ICVs, MGSs and other vehicle attachments, such as ambulances or resupply vehicles, present certain challenges to the SBCT infantry company commander. The terrain that the infantry company normally moves along after dismounting may not support vehicular movement. It may be possible for the company to secure the roads or trails these vehicles will move on by moving through and securing more restrictive terrain on the flanks. After dismounting, there are several options available to the commander for the disposition of the vehicles. Some of these options are:

- Employ them to support the dismounted infantry.
- Leave them in a lagger site (see Chapter 7, Section IV) with their crews to be called later for linkup.
- Displace them to another location.
- Leave them in place while their crews move dismounted.

3-5. CONTROL TECHNIQUES

Using the proper formation and movement techniques assists the SBCT infantry company commander's control of the company, but additional control techniques are often required. The following techniques may help in controlling company movements.

a. **Graphics.** Normally, the SBCT battalion assigns graphic control measures to integrate the SBCT infantry company's movement into the battalion's movement or scheme of maneuver. The company commander may need to establish other control measures to control his units. These may include boundaries, routes, checkpoints, release points, and target reference points on known (likely) enemy positions to control direct fires. The SBCT company commander ensures that each graphic control measure is updated in FBCB2 and is easy to locate on the terrain.

b. **Reconnaissance.** Prior reconnaissance aids control during movement. It provides the SBCT infantry company commander with a better idea of where movement is more difficult and where graphic control measures are needed. Elements from the company may perform this reconnaissance, but the RSTA squadron or battalion reconnaissance platoon is more likely to conduct the reconnaissance and provide the information to other organizations through FBCB2.

c. **Guides.** Guides who have already seen the terrain are the best way to provide control. When it is not possible to have guides for the entire movement, have them reconnoiter the difficult areas and guide the SBCT infantry company through them.

d. **Navigational Aids.** Even with the availability of a global positioning system (GPS), every leader should use his compass and a pace count for all moves. If possible, select routes that allow leaders to use prominent terrain to stay oriented.

e. **Limited Visibility Dismounted Movements.** The measures already listed are the best ways to provide control for moving during limited visibility. The following measures provide extra control when moving dismounted in limited visibility.

(1) ***Use Night Vision Devices.*** Effective limited visibility movement is possible even if there is not a sufficient quantity of night vision devices (NVDs) for every soldier. If the soldiers providing front, flank, and rear security use them, the entire unit can move faster. Soldiers should rotate to maintain effectiveness. Key leaders throughout the formation must also use NVDs.

(2) ***Reduce the Interval between Soldiers and Units.*** Closing up the formation allows the use of arm-and-hand signals and reduces the chance of breaks in contact. However, leaders should try to maintain the most dispersion possible at all times. Well-trained units can operate at night as they do during the day.

(3) ***Use Other Measures.*** Other measures include using luminous tape on the back of helmets, slowing the speed of movement, using land line to communicate or to guide units, and moving leaders closer to the front.

f. **Limited Visibility Mounted Movement.** Every leader should use the information gained through FBCB2 in addition to his map and compass to remain oriented at all times. If possible, select routes that allow leaders to use prominent terrain to stay oriented. In addition to the capabilities inherent with FBCB2, additional control measures provide unit vehicle integrity during mounted limited visibility movement operations.

(1) ***Use Night Vision Devices.*** Effective mounted limited visibility movement is possible if drivers and VCs throughout the formation use NVDs.

(2) ***Reduce the Interval between Soldiers, Vehicles, and Units.*** Closing up the formation allows the use of arm-and-hand signals and reduces the chance of breaks in contact. However, leaders should rely on FBCB2 and night vision equipment to maintain the greatest vehicle dispersion possible at all times. Well-trained units can operate at night as they do during the day.

3-6. SECURITY DURING MOVEMENT

During company movement, each platoon is responsible for a sector, depending on its position in the formation. When dismounted, each fire team and squad within the platoons has a sector, so the company has all-round security during movement (Figure 3-21).

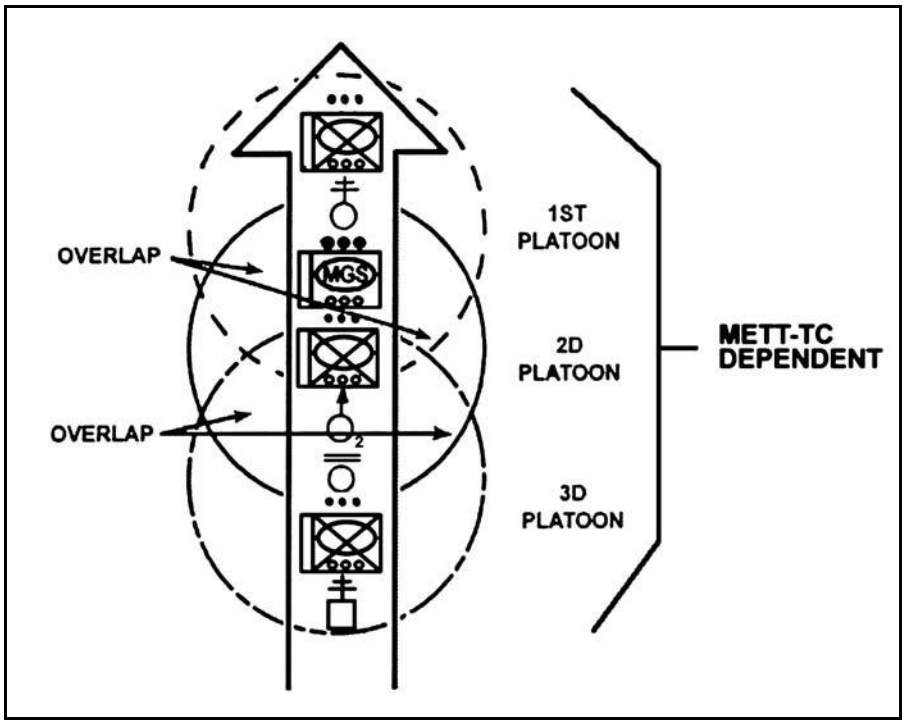


Figure 3-21. All-round security.

a. During short halts, soldiers spread out and assume prone positions behind cover. They watch the same sectors they did while moving. Leaders orient machine guns and antiarmor weapons on likely enemy avenues of approach into the position. Soldiers remain alert and keep movement to a minimum. They speak quietly and only when necessary. Soldiers with night vision devices scan areas where the enemy may be concealed during limited visibility.

b. During long halts, the SBCT infantry company sets up a perimeter defense (see Chapter 5). The company commander chooses the most defensible terrain, which must have good cover and concealment. The company SOP must address the actions required during long halts.

c. For additional security, small ambush teams may be concealed and remain in position after a short halt. Ideally, the center platoon provides these teams, which remain

in position to ambush any enemy following the SBCT infantry company. The linkup of these teams must be coordinated and understood by all.

d. Before occupying a static position (objective rally point, patrol base, or perimeter defense), the SBCT infantry commander should ensure that the enemy is unaware of his company's location. In addition to using the ambush teams, he may also conceal security teams in or near the tentative static position as the company passes it. The company continues movement, preferably until darkness, and then circles back to link up with the security teams, who have reconnoitered the position and guide the company into it.

3-7. MOVEMENT AS PART OF A BATTALION

The SBCT infantry company often moves as part of the battalion. The battalion commander assigns the company a position within the battalion formation, and the company commander uses the movement technique and movement formation that best suits the likelihood of enemy contact and his unit’s mission. Regardless of the company's position within the battalion formation, it must be ready to make contact or to support the other SBCT infantry companies by maneuver or by fire alone.

CHAPTER 4
OFFENSIVE OPERATIONS

The SBCT infantry rifle company has great flexibility due to its organic mobility and robust infantry organization. While retaining its light infantry ethos and warfighting capability, it can move faster and farther and can react rapidly to changes in the tactical situation. Thus, this unit is not constrained by the time-space problem that has historically faced the light infantry.

Section I. GENERAL PLANNING CONSIDERATIONS

The outcome of decisive combat derives from offensive actions. All operations are designed to transition to and support the offense. Only through offensive actions can the company accomplish its primary mission--to close with the enemy by means of fire and maneuver to destroy or capture him, or to repel his assault by fire, close combat, and counterattack. A sound doctrinal foundation during offensive planning assists the commander in capitalizing on the increased tactical flexibility of the SBCT infantry rifle company.

4-1. CHARACTERISTICS OF THE OFFENSE

Traditionally, the characteristics of the offense include surprise, tempo, concentration, and audacity. Due to the nature of modern offensive operations and the digital capabilities of the SBCT company, however, flexibility has been added to the following discussion of the offense. The SBCT infantry rifle company commander must master both analog and digital capabilities. This dual capability provides the flexibility necessary to glean the benefits of digital while retaining the ability to transition rapidly to analog to continue the offense in case of a disruption in digital capability. The commander decides how to apply the following characteristics for each mission.

a. **Surprise.** Units achieve surprise by striking the enemy at a time, at a place, or in a manner for which he is unprepared. Total surprise rarely is essential; simply delaying or disrupting the enemy's reaction usually is effective.

(1) Surprise delays the enemy's reactions, stresses his command and control, and induces psychological shock in his soldiers and leaders. This may allow an attacker to succeed with fewer forces than might otherwise be required.

(2) The company's abilities to attack during limited visibility, to operate in small units, and to infiltrate are often key to achieving surprise. The company must exploit the effect of surprise on the enemy before he can recover.

b. **Tempo.** Tempo is the rate of speed of military action. Controlling or altering that rate is essential for maintaining the initiative. Speed promotes surprise, keeps the enemy off balance, contributes to the security of the attacking force, and prevents the defender from taking effective countermeasures.

(1) Properly exploited, speed confuses and immobilizes the defender until the attack becomes unstoppable. Leaders build speed into operations through careful planning.

(2) The company increases its speed through its ability to transition rapidly from moving mounted to moving as light infantry by using simple plans, decentralized control, and mission orders. Speed of movement depends on reconnaissance, reducing the

soldiers' loads, using proper movement formations and techniques, and selecting good routes for both mounted and dismounted movement. In the case of dismounted movement, ICVs allow soldiers to shed loads down to fighting loads. Companies develop SOPs to facilitate their transition from mounted movement to dismounted movement.

c. **Concentration.** The attacker concentrates combat power at the decisive points and times to achieve the unit's purpose. Leaders strive to concentrate the effects of their combat power without concentrating forces.

(1) Because the attacker often moves across terrain the enemy has prepared, he may expose himself to the enemy's fires. By concentrating overwhelming combat power at an area or system that is weak, the attacker can reduce both the effectiveness of enemy fires and the amount of time he is exposed to these fires.

(2) The challenge for the company commander is to concentrate combat power while reducing the enemy's ability to do the same against his unit. Actions that cause the enemy to shift combat potential away from the intended decisive point result in a greater advantage in combat power where and when the commander needs it most. The commander must consider employing his mounted and light infantry capabilities to achieve overwhelming combat power at the decisive point.

d. **Audacity.** Audacity is the willingness to risk bold action to achieve positive results. The audacious commander develops confidence by conducting a thorough estimate. His actions, although quick and decisive, are based on a reasoned approach to the tactical situation and on his knowledge of his soldiers, the enemy, and the terrain. He is daring and original, but he is not rash.

(1) Audacious commanders throughout history have used the "indirect approach." They maneuver to maintain a position of advantage over the enemy, seek to attack the enemy on the flank or rear, and exploit success at once, even if this briefly exposes their own flanks.

(2) Boldness and calculated risk have always been the keystones of successful offensive operations. They must, however, be consistent with the higher commander's mission and intent.

e. **Flexibility.** Given the increased capabilities of the SBCT infantry rifle company, the commander has much greater flexibility with this new organization and should plan on maximizing it in planning and execution. At some point in most attacks, the original plan must be adjusted to meet changes in the situation. Mission orders and competent subordinate leaders who exercise initiative ensure the proper adjustments are made.

(1) The commander must expect uncertainties and be ready to exploit opportunities. The flexibility required often depends on the amount of reliable intelligence the commander has on the enemy.

(2) The commander builds flexibility into his plan during the decision-making process. By conducting a thorough wargame, he develops a full appreciation for possible enemy actions. A reserve increases the company commander's flexibility. However, given the SBCT infantry company's organization and increased situational understanding through the COP, its reserve may be smaller than in strictly light and heavy units.

4-2. TYPES OF OFFENSIVE OPERATIONS

The four types of offensive operations, described in FM 3-90, are *movement to contact*, *attack*, *exploitation*, and *pursuit*. Companies can execute movements to contact and

attacks. Platoons generally conduct these forms of the offense as part of a company or larger unit operation. Companies and platoons participate in a higher unit's exploitation or pursuit. The nature of these operations depends largely on the amount of time and enemy information available during the planning and preparing for the operation phases.

a. **Movement to Contact.** The movement to contact (MTC) is a type of offensive operation designed to develop the situation and establish or regain contact. The company may conduct an MTC on its own or as part of a larger unit's operation when the enemy situation is vague or not specific enough to conduct an attack. (For a detailed discussion of MTC refer to Section VI.)

b. **Attack.** An attack is an offensive operation that destroys enemy forces or seizes or secures terrain. Movement, supported by fires, characterizes the conduct of an attack. The company likely will participate in a synchronized attack. However, a company may conduct a special purpose attack as part of, or separate from, an offensive or defensive operation. Special purpose attacks consist of ambush, spoiling attack, counterattack, raid, feint, and demonstration. (For a detailed discussion of attack and special purpose attacks refer to Sections V and VII.)

c. **Exploitation.** Exploitations are conducted at the battalion level and higher. The objective of exploitation is to complete the destruction of the enemy following a successful attack. Companies and platoons may conduct movements to contact or attacks as part of a higher unit's exploitation.

d. **Pursuit.** Pursuits normally are conducted at the brigade or higher level. A pursuit typically follows a successful exploitation and is designed to prevent a fleeing enemy from escaping and to destroy him. Companies and platoons will participate in a larger unit's exploitation and may conduct attacks as part of the higher unit's operation.

4-3. FORMS OF MANUEVER

Given the typical sequence for offensive operations (refer to Section II), the company maneuvers against the enemy in an area of operation. Maneuver places the enemy at a disadvantage through the application of friendly fires and movement. The five forms of maneuver are:

- Envelopment.
- Turning movement.
- Infiltration.
- Penetration.
- Frontal attack.

a. **Envelopment.** Envelopment (Figure 4-1, page 4-4) is a form of maneuver in which an attacking force seeks to avoid the principal enemy defenses by seizing objectives to the enemy rear or flank in order to destroy him in his current positions. "Flank attacks" are a variant of envelopment in which access to the enemy's flank and rear results in enemy movement. A successful envelopment requires discovery or creation of an assailable flank. The envelopment is the preferred form of maneuver because the attacking force tends to suffer fewer casualties while having the most opportunities to destroy the enemy. Envelopments focus on:

- Seizing terrain.
- Destroying specific enemy forces.
- Interdicting enemy withdrawal routes.

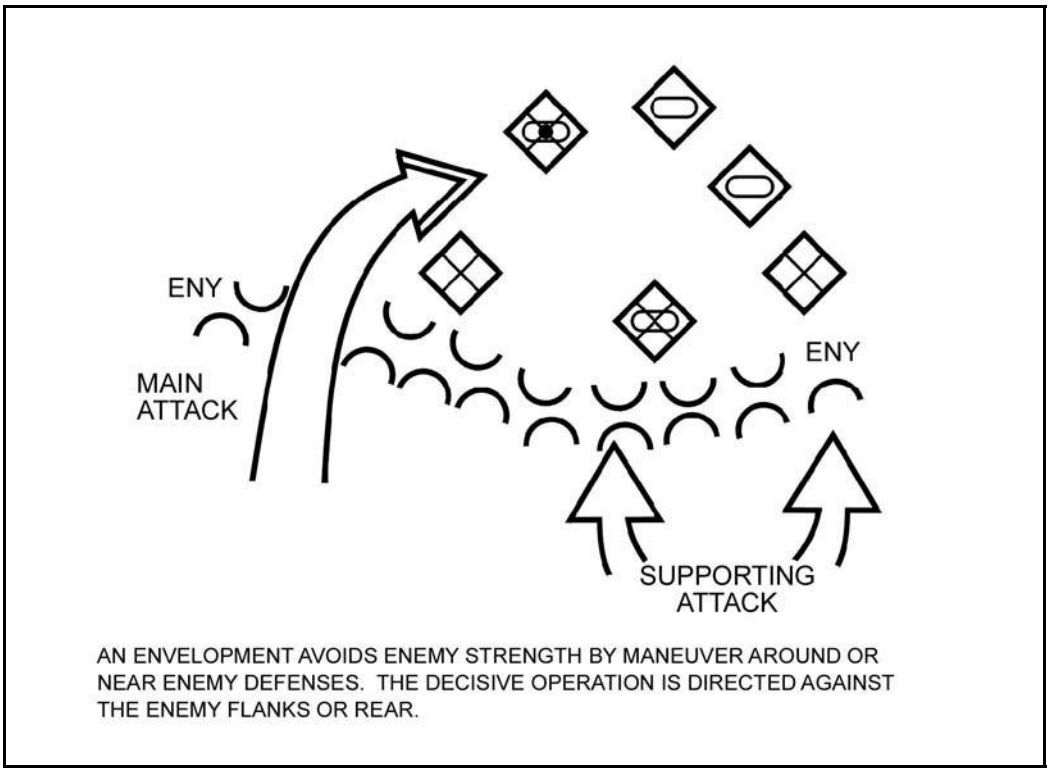

ENY
MAIN
ATTACK
ENY
SUPPORTING
ATTACK
AN ENVELOPMENT AVOIDS ENEMY STRENGTH BY MANEUVER AROUND OR NEAR ENEMY DEFENSES. THE DECISIVE OPERATION IS DIRECTED AGAINST THE ENEMY FLANKS OR REAR.

Figure 4-1. Envelopment.

b. **Turning Movemen.**. Turning movement (Figure 4-2) is a form of maneuver in which the attacking force seeks to avoid the enemy's principal defensive positions by seizing objectives to the enemy's rear and causing the enemy to move out of his current positions or to divert major forces to meet the threat. For a turning movement to be successful, the unit trying to turn the enemy must attack something that the enemy will fight to save. This may be a supply route, artillery emplacement, or a headquarters. In addition to attacking a target that the enemy will fight to save, the attacking unit should be strong enough to pose a real threat to the enemy. The turning movement is a type of envelopment in which the attacker attempts to avoid the defense entirely. Instead, he seeks to secure key terrain deep in the enemy's rear and along his lines of communication. Faced with a major threat to his rear, the enemy is thus "turned" out of his defensive positions and forced to attack rearward. The company will likely conduct a turning movement as part of a battalion supporting an SBCT attack.

NOTE: Turning movement differs from envelopment in that the force conducting the turning movement seeks to make the enemy displace from his current location whereas an enveloping force seeks to engage the enemy in his current location from an unexpected direction.

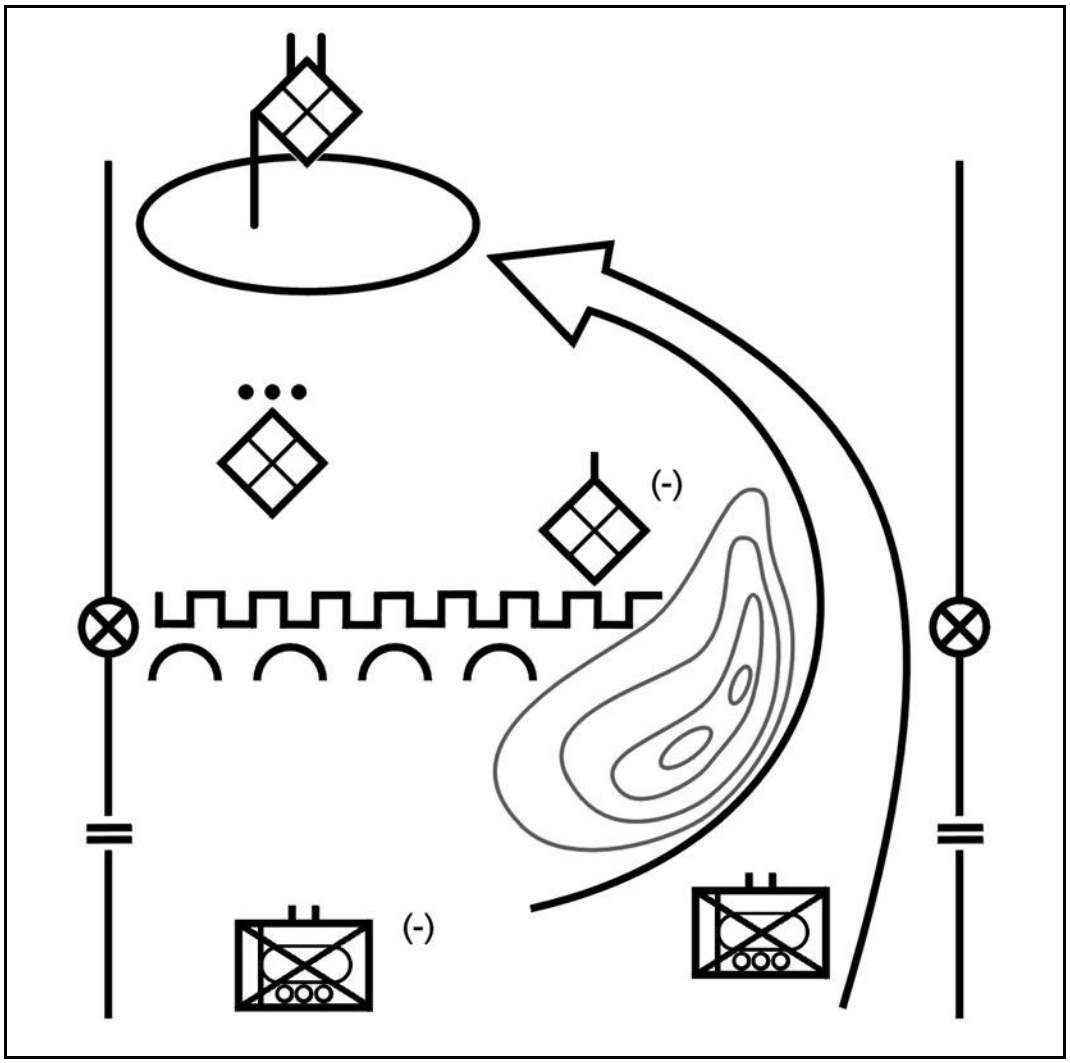


Figure 4-2. Turning movement.

c. **Infiltration.** Infiltration (Figure 4-3, page 4-6) is a form of maneuver in which an attacking force conducts undetected movement through or into an area occupied by enemy forces to occupy a position of advantage in the enemy rear while exposing only small elements to enemy defensive fires. Moving and assembling forces covertly through enemy positions takes a considerable amount of time. A successful infiltration reaches the enemy's rear without fighting through prepared positions. An infiltration is normally used in conjunction with and in support of another form of maneuver. A company may conduct an infiltration (dismounted or mounted) as part of a larger unit's attack with the battalion employing another form of maneuver. The company commander also may employ maneuver by infiltration to move his platoons to locations to support the battalion's attack. SBCT infantry companies are well suited for infiltrations due to their mobility, positional awareness, COP, and small signature when moving dismounted. A company may conduct an infiltration in order to--

- Attack enemy-held positions from an unexpected direction.
- Occupy a support-by-fire position to support an attack.

- Secure key terrain.
- Conduct ambushes and raids.
- Conduct a covert breach of an obstacle.

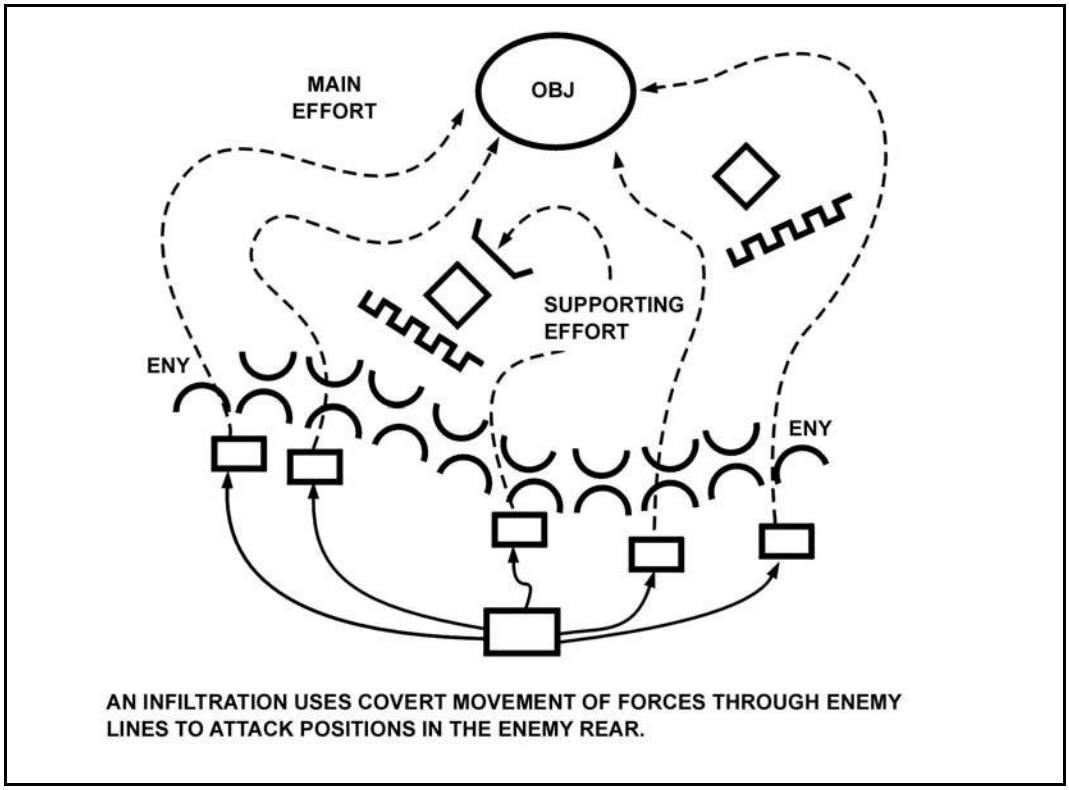


Figure 4-3. Infiltration.

d. **Penetration.** Penetration (Figure 4-4) is a form of maneuver in which an attacking force seeks to rupture enemy defenses on a narrow front to create both assailable flanks and access to the enemy's rear. Penetration is used when enemy flanks are not assailable, when enemy defenses are overextended, when weak spots in the enemy defense are identified, and when time does not permit some other form of maneuver. A penetration normally consists of three steps:

- Breach the enemy's main defense positions.
- Widen the gap created to secure flanks by enveloping one or both of the newly exposed flanks.
- Seize the objective.

As part of a larger force penetration, the company will normally isolate, suppress, fix, or destroy enemy forces, breach tactical or protective obstacles in the enemy's main defense, secure the shoulders of the penetration, or seize key terrain. A battalion may also use the penetration to secure a foothold within a large built-up area.

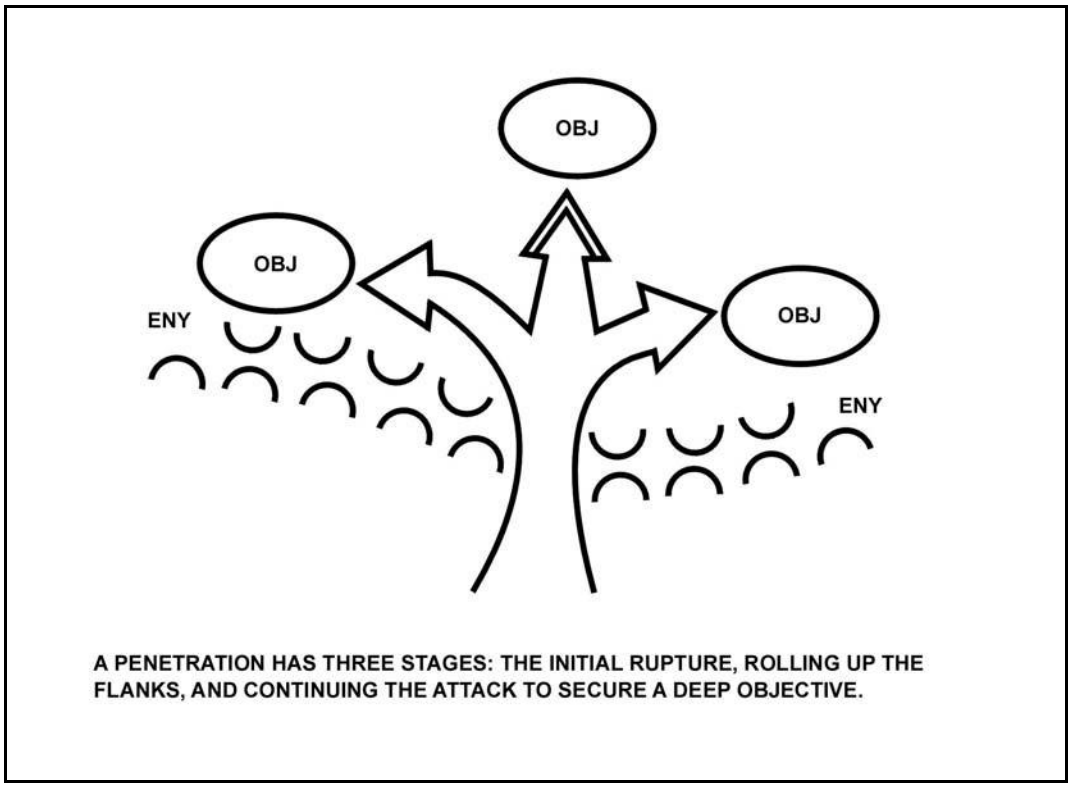

OBJ
OBJ
ENY
OBJ
ENY
A PENETRATION HAS THREE STAGES: THE INITIAL RUPTURE, ROLLING UP THE FLANKS, AND CONTINUING THE ATTACK TO SECURE A DEEP OBJECTIVE.

Figure 4-4. Penetration.

e. **Frontal Attack.** Frontal attack is a form of maneuver in which an attacking force seeks to destroy a weaker enemy force or fix a larger enemy force along a broad front. It is the least desirable form of maneuver because it exposes the attacker to the concentrated fire of the defender and limits the effectiveness of the attacker's own fires. However, the frontal attack is often the best form of maneuver for an attack in which speed and simplicity are key; it is useful in overwhelming weak defenses, security outposts, or disorganized enemy forces.

Section II. SEQUENCE OF OFFENSIVE OPERATION

As the company commander plans for an offensive mission, he generally considers the following sequence of events that apply to many, but not all, offensive operations.

- Assembly area.
- Reconnaissance.
- Movement to the line of departure.
- Maneuver.
- Deployment.
- Assault
- Consolidation and reorganization.

4-4. ASSEMBLY AREA

The commander directs and supervises mission preparations in the assembly area to prepare the company for the upcoming battle. Preparation time also allows the company to conduct precombat checks and inspections, rehearsals at all levels, and CSS activities.

Given the communications capabilities of the company, the commander may conduct on-the-move planning to hasten his attack. (See Appendix G, Road Marches and Assembly Areas, for more information.)

4-5. RECONNAISSANCE

All echelons should conduct reconnaissance. The enemy situation and available planning time may limit the unit's reconnaissance, but leaders at every level must aggressively seek information about the terrain and enemy. Leaders must remember the benefits of having their soldiers on the ground providing real-time information, regardless of the information available via FBCB2. The on-the-ground company reconnaissance effort reports on enemy activity in the company's area of interest (AOI) near the LD, attack position (ATK PSN), assault position (ASLT PSN), or the company-assigned unit objective (OBJ). This provides the maneuver commander with the information needed to execute the best possible tactical plan.

4-6. MOVEMENT TO THE LINE OF DEPARTURE

When attacking from positions not in contact, rifle companies often stage in rear assembly areas, road march to ATK PSN behind friendly units in contact with the enemy, conduct passage of lines, begin the attack, and then move to their AOs. When necessary, the rifle company employs indirect fires, close air support (when available), and direct fire to facilitate its movement.

4-7. MANEUVER

Maneuver is the foundation for the employment of forces on the battlefield. It is defined as the use of movement in combination with fire (or fire potential), employed to achieve a position of advantage with respect to the enemy and to facilitate accomplishment of the mission. At the company level, maneuver is the essence of every tactical operation and task. When possible, the commander employs those techniques that avoid the enemy's strength and conceal the company's true intentions. He deceives the enemy as to the location of the main effort, uses surprise to take advantage of his initiative in determining the time and place of his attack, and uses indirect approaches, when available, to strike the enemy from a flank or the rear. The company commander maneuvers his platoons to close with the enemy, to gain positional advantage over him, and ultimately to destroy him or force him to withdraw or capitulate.

a. **Base of Fire Force.** The combination of fire and movement first requires a base of fire in which some elements of the company remain stationary and provide protection for the bounding forces by preventing the enemy from reacting to the bounding force.

(1) The base of fire force occupies positions that afford effective cover and concealment, unobstructed observation, and clear fields of fire. Once it is in position, the base of fire is responsible both for suppressing known enemy forces and for aggressively scanning assigned sectors of observation; it identifies previously unknown elements and then suppresses them. The protection provided by the base of fire force allows the bounding unit to continue its movement and to retain the initiative even when it is under enemy observation or within range of enemy weapons.

(2) Because maneuver is decentralized in nature, decisions on where and when to establish a base of fire must be made at the appropriate level. These decisions normally

fall to a leader on a specific part of the battlefield who knows what enemy forces can engage the bounding force and what friendly forces are available to serve as the base of fire. At company level, these decisions may be made within the company (with the base of fire provided by a platoon), within platoons (with the base of fire provided by the weapons squad), or within squads (with a fire team as the base of fire).

b. **Bounding Force.** Movement in a maneuver situation is inherently dangerous. It is complicated not only by the obvious potential for harm posed by enemy weapons but also by the uncertainty caused by unknown terrain and other operational factors.

(1) The bounding force must take full advantage of whatever cover and concealment the terrain provides. Leaders can enhance security by enforcing use of intervening terrain and avoidance of skylining.

(2) All elements and or vehicle crews involved in the maneuver must maintain 360-degree security at all times. Elements in the bounding force must scan their assigned sectors of observation continuously.

(3) Although METT-TC factors ultimately dictate the length of the bounds, the bounding force should never move beyond the range at which the base of fire force can effectively suppress known, likely, or suspected enemy positions. This minimizes the bounding force's exposure to enemy fires.

(4) In severely restricted terrain, bounds are generally much shorter than in more open areas.

(5) If mounted, the bounding force may need to dismount infantry squads or individual crewmen to observe intervening gaps or dead space. Although this usually causes the platoons to make a tactical pause, it does not slow the operation as much as would the loss of a squad or vehicle and crew to a hidden enemy antitank system.

(6) The bounding element must remain focused on its ultimate goal of gaining a positional advantage, which it then can use to destroy the enemy by direct and indirect fires.

4-8. DEPLOYMENT

As a unit deploys and moves toward the assault position, the unit begins the final positioning of its forces so the company can pass through the assault position with minimum delay and confusion. This tactical positioning allows units the opportunity to continue to "flow" the force in its best tactical posture through the ASLT PSN into the attack. Movement should be as rapid as the terrain, force mobility, and enemy situation permit. The probable line of departure is the next control measure following the attack position and represents the point at which the force is fully committed to offensive action.

4-9. ASSAULT

During offensive operations, the unit remains enemy- and effects-oriented; however, based on the factors of METT-TC, the company's objective may be terrain- or force-oriented. Terrain-oriented objectives require the SBCT infantry rifle company to seize and retain a designated area and often require fighting through enemy forces. If the objective is force-oriented, an objective area may be assigned for orientation, but the company's effort is focused on the enemy's actual location. The enemy may be a stationary or moving force. Actions on the objective start when the company begins

placing fires on the objective; this normally occurs when the commander initiates his echelonment of fire onto the objective.

4-10. CONSOLIDATION AND REORGANIZATION.

The company consolidates and reorganizes as required by the situation and mission. Consolidation is the process of organizing and strengthening a newly captured position so that it can be defended. Reorganization is the actions taken to shift internal resources within a degraded unit to increase its level of combat effectiveness. The company executes follow-on missions as directed by the SBCT battalion commander. A likely mission is to continue the attack against targets of opportunity in the objective area. Whether a raid, hasty attack, or deliberate attack, a company must posture itself and prepare for continued offensive operations.

Section III. PLANNING CONSIDERATIONS

The battlefield operating systems (BOS) are a listing of critical tactical activities that provides a means of reviewing preparation and execution. Synchronization and coordination among the BOS are critical for success. Selected BOS and other planning considerations are addressed in this section. For a detailed discussion of Command and Control and Intelligence, refer to Chapter 2.

4-11. FIRE SUPPORT

As part of the top-down fire planning system, the company commander must refine the fire plan from higher headquarters to meet his mission requirements. He incorporates the results of his METT-TC analysis and makes key locations and targets from the fire plan an integral part of the company rehearsal. Additionally, he works with the FSO to develop a corresponding observation plan and establishes triggers for initiating or shifting fires. The company commander and the FSO must have a thorough understanding of organic fire support elements and traditional artillery support assets. The majority of the company's fire support is from mortar systems organic to the SBCT infantry battalion and company. The commander employs supporting fires in the offense to achieve a variety of tactical goals:

- To suppress enemy weapons systems that inhibit movement.
- To fix or neutralize bypassed enemy elements.
- To prepare enemy positions for an assault. Preparatory fires are normally used during a deliberate attack, with fires placed on key targets before the assault begins. These indirect fires are integrated and synchronized with the company’s direct fire systems to provide constant pressure on the enemy position and prevent him from reacting to the company’s assaulting elements. The commander must weigh the benefits of preparatory fires against the potential loss of surprise.
- To obscure enemy observation or screen friendly maneuver. The company can take advantage of smoke in various maneuver situations, such as during a bypass or in deception operations.

- To support breaching operations. Fires can obscure or suppress enemy elements that are overwatching reinforcing obstacles. They can also obscure or suppress enemy forces on an objective area during the conduct of an assault breach.
- To illuminate enemy positions. Illumination fires are always included in contingency plans for night attacks.

4-12. MOBILITY, COUNTERMOBILITY, AND SURVIVABILITY

The SBCT battalion may task-organize the company with engineers as part of a breaching operation in the offense. The company commander normally receives additional mobility assets, such as an engineer platoon. If attached to heavy forces, it can also receive equipment suited for mounted mobility, such as mine clearing line charges (MICLICs), or armored combat earthmovers, based on METT-TC. Refer to FM 90-13-1 and FM 90-7 for a detailed discussion of mobility and survivability operations and support, and FM 3-34.2 for a detailed discussion of breaching operations.

4-13. AIR DEFENSE

Avengers or mounted Stinger sections may be attached, with organic vehicle support, to travel with the company. Their security must be a consideration in planning for offensive operations. The company commander must plan for and rehearse internal air security and active air defense measures. SOP normally dictates ADA requirements and procedures. The commander must anticipate possible contact with enemy air assets by templating enemy helicopter and fixed-wing air corridors and avenues of approach. Unit SOPs should dictate internal air security measures and active air defense measures.

4-14. COMBAT SERVICE SUPPORT

The main purpose of combat service support in the offense is to assist maneuver elements in maintaining the momentum of the attack. In the offense, CSS functions are performed as far forward as the tactical situation allows. Company trains remain one terrain feature behind the location of the company vehicles when the company has dismounted and is moving forward on foot. The commander must consider the enemy situation and how it relates to the security of the company trains. If the company is conducting decentralized operations, the company trains locate where they can best support the platoons in the accomplishment of the company's mission. The ICVs and medical evacuation team move forward to the objective area to evacuate casualties and conduct resupply. If necessary, the supply sergeant also can move forward to assist with sustainment operations. The company CP reports the company's combat status to the SBCT battalion and requests resupply as needed. Key CSS planning considerations for company offensive operations include the following:

- Increased consumption of Class III, V and VIII supplies.
- Higher casualty rates.
- Vehicle maintenance requirements.

4-15. AVIATION

The SBCT does not have organic or assigned helicopter support, but the SBCT infantry company commander must have a good understanding of aviation employment

capabilities in case the company is supported by these assets. Refer to Chapter 10 for a detailed discussion of Army aviation support.

a. **Reconnaissance.** Like their ground-based counterparts, air reconnaissance operations obtain information by visual observation and other detection methods. They must have the ability to develop the situation, process the information, and provide it to the commander in near real time. The company commander, through the battalion, can take advantage of the supporting aviation element's AH-64 Apache helicopters to dramatically improve his 24-hour reconnaissance capability. Under favorable conditions, they can furnish early information concerning the enemy's general disposition and movements to considerable depth beyond the forward line of troops.

b. **Security.** Aviation assets can extend the company's security area, providing the commander with battle-tracking capability. They can expand the company's maneuver space, provide additional reaction time, and assist in protection of the company.

c. **Attack.** The primary purpose of attack helicopter operations is the destruction of enemy ground forces at decisive points in close operations. Helicopters are normally most effective when used en masse in continuous operations on the enemy's flanks and rear. Night operations are preferred.

d. **Support by Fire.** When assigned a support-by-fire mission, attack helicopters establish a base of fire or overwatch position. They then can engage enemy targets while SBCT infantry elements move to or bypass the target area. The helicopters' role may range from suppression to complete destruction of the enemy force. Their most common mission is to fix targets so other friendly elements can maneuver.

e. **Attack by Fire.** When the enemy situation is vague, as in a movement to contact, and the attack helicopter battalion commander has been assigned his own sector, the commander may establish attack-by-fire positions. From these positions the attack helicopters engage their targets without maneuvering over them. The intent here is to inflict only a specified level of damage. Attack-by-fire positions are best suited to a fluid battlefield. The aviation commander often has the best vantage point from which to synchronize the combat multipliers, clear fires, and prevent fratricide.

f. **Air Assault.** SBCT forces should always consider the use of air assault to assist them in overcoming obstacles or restricted terrain during the seizure of critical terrain and in executing follow and support missions to preserve the momentum of the attack. The company can participate in an air assault to an objective, and the vehicles can be brought forward during consolidation and reorganization to resupply and prepare for upcoming missions. (Refer to FM 90-4 for a detailed discussion of air assault operations.)

g. **Communications.** All Army helicopters have SINCGARS radios and can transmit digital information to vehicles equipped to receive such data. While the radio is the primary means of tactical communications, face-to-face contact remains the best method of passing information between air and ground elements. Whenever the situation permits, aviation leaders should land their aircraft, link up with their ground counterparts (such as the company commander), and directly communicate the battlefield situation as gathered from the air.

h. **Coordination.** Aviation scout assets can easily identify enemy targets and then coordinate with the company FIST to facilitate destruction of the targets with direct and indirect fires. In addition, identifying friendly positions and planned movements during

prior coordination between air and ground elements can eliminate a significant number of factors that contribute to fratricide, a vital concern during combined-arms missions.

4-16. INTEGRATION OF VEHICLES

The ICV is primarily a troop transport vehicle that provides increased mobility and tactical flexibility. The purpose of the vehicle is not to provide a substantial increase in firepower for the infantry close fight. However, if the terrain supports wheeled movement and the weapons systems can range the objective area, the commander can use the mounted weapons systems to augment the effects of direct and indirect fires. There are two basic concepts for augmentation fires: complementary and reinforcing. *Complementary fires* are fires that are different in nature from the "base" weapon system but increase the effects of that base system. For example, a commander may implement complementary fires by utilizing his MGS platoon, with flechette rounds, to increase the lethality of his dismounted suppression element in an attack. *Reinforcing fires* are additional fires that are similar to the base system but that increase the volume and, subsequently, the lethality of the base weapon system. For example, a commander may employ his mounted weapons systems from the ICVs to reinforce the dismounted suppression element in an attack. The following are employment options for the ICV in the offense:

- Overwatching the movement of infantry.
- Providing long-range suppression fires that can augment a dismounted support-by-fire position in support of an attack.
- Securing MGSs as they provide direct fire support to the dismounted attack.
- Providing internal and external isolation of an objective.
- Resupplying infantry with Class V (ammunition) and providing casualty evacuation (CASEVAC) to the urban operations (UO) fight.
- Conducting a mounted assault onto an enemy objective and then dismounting the infantry directly on the objective (if the antitank [AT] threat is low).

Section IV. ACTIONS ON CONTACT

In both offensive and defensive operations, contact occurs when a member of the SBCT infantry company encounters any situation that requires an active or passive response to the enemy. These situations may entail one or more of the following forms of contact:

- Visual contact (friendly elements may or may not be observed by the enemy).
- Physical contact (direct fire) with an enemy force.
- Indirect fire contact.
- Contact with obstacles of enemy or unknown origin.
- Contact with enemy or unknown aircraft.
- Situations involving NBC conditions.
- Situations involving electronic warfare tactics.
- Contact with nonhostile elements, such as civilians.

Leaders at echelons from platoon through battalion conduct actions on contact when they or a subordinate element recognizes one of the forms of contact or receives a report of enemy contact. The company may conduct actions on contact in response to a variety of circumstances, including the following:

- Subordinate platoon(s) conducting actions on contact.
- Reports from the SBCT battalion or another higher unit.
- Reports from or actions of an adjacent unit.

4-17. DEVELOPING ACTIONS ON CONTACT

SBCT infantry company commanders and platoon leaders analyze the enemy throughout the troop-leading procedures to identify all likely contact situations that may occur during an operation. Through the planning and rehearsals conducted during troop-leading procedures, they develop, modify if necessary, and refine COAs to deal with probable enemy actions. Planning and rehearsals will, when conducted properly, reduce the planning to action time. The COAs eventually become the foundation for the company's scheme of maneuver. During the troop-leading process, the leaders must evaluate a number of factors to determine their impact on the unit's actions on contact. For example, the commander needs to consider how the likelihood of contact affects his choice of movement techniques and formations. By doing this, he can begin preparing the company for actions on contact; for example, he may outline procedures for the transition to more secure movement techniques before a contact situation.

4-18. TIME REQUIREMENTS FOR ACTIONS ON CONTACT

SBCT infantry commanders must understand that properly executed actions on contact require time at both platoon and company levels. To develop the situation fully, a platoon may have to execute extensive lateral movement, dismount and remount infantry squads, conduct reconnaissance by fire, and call for and adjust indirect fires. Each of these activities requires time. The commander must balance the time required for subordinate elements to conduct actions on contact with the need of the company or SBCT battalion to maintain tempo and momentum. In terms of slowing the tempo of an operation, however, the loss of a platoon is much more costly than the additional time required to allow the subordinate element to develop the situation properly.

4-19. THE FOUR STEPS OF ACTIONS ON CONTACT

The company should execute actions on contact using a logical, well-organized process of decision-making and action entailing these four steps:

- Deploy and report.
- Evaluate and develop the situation.
- Choose a COA.
- Execute the selected COA.

The four-step process is not intended to generate a rigid, lockstep response to the enemy. Rather, the goal is to provide an orderly framework that enables the company and its platoons to respond to the initial contact and then to apply sound decision-making and timely actions to complete the operation. Ideally, the company will acquire the enemy before being sighted by the enemy; it then can initiate physical contact on its own terms by executing the designated COA.

a. **Step 1, Deploy and Report.** Events that occur during the first step of actions on contact depend in great measure on whether the contact is expected or unexpected. Regardless of whether contact is expected or unexpected, the first step of actions on contact concludes with the unit deployed (into base of fire and bounding forces), the

enemy suppressed or destroyed, and the commander sending a contact report to SBCT battalion headquarters. The following discussion examines some of the variables the company commander faces in expected and unexpected contact situations and discusses the roles of platoon battle drills, SOPs, and reports.

(1) ***Expected Contact.*** If the commander expects contact, he will already have deployed the company by transitioning to the bounding overwatch movement technique. If the company is alert to the likely presence of the enemy, it has a better chance of establishing visual contact, and then physical contact, on its own terms before being detected by the enemy. An overwatching or bounding platoon usually makes visual or physical contact which initiates the company's actions on contact. In a worst-case scenario, the platoon may be engaged by a previously undetected (but expected) enemy element. In this event, the platoon in contact conducts a battle drill for its own survival and then initiates actions on contact.

(2) ***Unexpected Contact.*** In some cases, the company may make unexpected contact with the enemy while using traveling or traveling overwatch. The element in contact or, if necessary, the entire company may have to deploy using battle drills to survive the initial contact.

(3) ***Battle Drills.*** Battle drills provide virtually automatic responses to contact situations in which immediate, and in many cases violent, execution of an action is critical both to the unit's initial survival and to its ultimate success in combat. Drills are not a substitute for carefully planned COAs; rather, they buy time for the unit in contact and provide a framework for development of the situation. When contact occurs, the company's platoons deploy immediately, executing the appropriate battle drills under the direction of the commander. (For additional information on dismounted platoon battle drills, refer to FM 3-21.9 [FM7-5].)

(4) ***Maneuver Standing Operating Procedures.*** An effectively written, well-rehearsed maneuver SOP helps to ensure quick, predictable actions by all members of the company. The SOP, unlike platoon battle drills, allows leaders to take into account the friendly task organization, a specific enemy, and a specific type of terrain. Therefore, the SOP can assist the company in conducting actions on contact and maintaining the initiative in a number of battlefield situations.

(5) ***Reports.*** Timely, accurate, and complete reports are essential throughout actions on contact. As part of the first step of the process, the company commander must send a contact report to the SBCT battalion as soon as possible after contact occurs. He provides subsequent reports to update the situation as necessary.

b. **Step 2, Evaluate and Develop the Situation.** While the company deploys, the commander must evaluate the situation and, as necessary, continue to maneuver to develop it.

(1) The commander quickly gathers as much information as possible, either visually or, more often, through FBCB2 reports from the platoon(s) in contact. He analyzes the information to determine critical operational considerations, including these:

- Size of the enemy element.
- Location, composition, activity, orientation, and capabilities of the enemy force.
- Effects of obstacles and terrain.
- Probable enemy intentions.
- How to gain positional advantage over the enemy.

- Friendly situation (location, strength, and capabilities).
- Possible friendly COAs to achieve the specified end state.

(2) After evaluating the situation, the commander may discover that he does not have enough information to identify the necessary operational considerations. To make this determination, he must further develop the situation in accordance with the SBCT battalion commander's intent, using a combination of these techniques:

- Dismounted squads conducting surveillance (using binoculars and other optical aids).
- Mounted maneuver, dismounted maneuver, or both (this includes lateral maneuver to gain additional information by viewing the enemy from another perspective).
- Indirect fire.
- Reconnaissance by fire.

(3) Once the commander has determined the size of the enemy force the company has encountered, he sends a report to the SBCT battalion.

c. **Step 3, Choose a COA.** After developing the situation and determining that he has enough information to make a decision, the company commander selects a COA that meets the requirements of the SBCT battalion commander's intent and is within the company's capabilities.

(1) ***Nature of Contact.*** The nature of the contact (expected or unexpected) may have a significant impact on how long it takes a commander to develop and select a COA. As an example, in preparing to conduct an attack the company commander determines that the company will encounter an enemy security observation post along its axis of advance. During troop-leading procedures, he develops a scheme of maneuver to defeat the outpost. When the company's lead platoon makes contact with the enemy, the commander can quickly assess that this is the anticipated contact and direct the company to execute his plan. On the other hand, unexpected contact with a well-concealed enemy force may require time for development of the situation at platoon level. As it "fights" for critical information that will eventually allow the commander to make a sound decision, the company may have to employ several of the techniques for developing the situation.

(2) ***COA Procedures.*** The company commander has several options in how he goes about the process of selecting a COA.

(a) If his development of the situation reveals no need for change, the company commander directs the company to execute the original plan.

(b) If his analysis shows that the original plan is still valid but that some refinement is necessary, the company commander informs the SBCT battalion commander (prior to execution, if possible) and issues a fragmentary order (FRAGO) to refine the plan.

(c) If his analysis shows that the original plan needs to be changed but that the selected COA will still comply with the SBCT battalion commander's intent, the company commander informs the battalion commander (prior to execution, if possible) and issues a FRAGO to re-task his subordinate elements.

(d) If his analysis shows that the original plan deviates from the SBCT battalion commander's intent and needs to be changed, the company commander must report the situation and, based on known information in response to an unforeseen enemy or battlefield situation, recommend an alternative COA to the SBCT battalion commander.

(e) If the battlefield picture is still vague, the company commander must direct the company or a platoon to continue to develop the situation. This will allow him to gather the information needed to clarify a vague battlefield picture. He then uses one of the first four options to report the situation, choose a COA, and direct further action.

d. **Step 4, Execute the Selected COA.** In executing a COA, the company transitions to maneuver. It then continues to maneuver throughout execution, either as part of a tactical task or as an advance while in contact, to reach the point on the battlefield from which it executes its tactical task. The company can employ a number of tactical tasks as COAs, any of which may be preceded and followed by additional maneuver. As execution continues, more information becomes available to the company commander. Based on the emerging details of the enemy situation, he may have to alter his COA during execution.

> **EXAMPLE:** As the company maneuvers to destroy what appears to be a dismounted infantry platoon, it discovers two additional enemy platoons in prepared positions. The commander must analyze and develop the new situation. He then selects an alternate COA, such as establishing a support-by-fire position to support another company's maneuver against the newly discovered enemy force.

Section V. COMPANY OFFENSIVE OPERATIONS

The company normally conducts offensive operations--attack, movement to contact, exploitation, and pursuit--as part of an SBCT battalion or larger element. (The company also may conduct these operations independently.) Movement to contact will be discussed in Section VI. This section examines the various roles the company may play in these operations and the tactics for conducting--

- Force-oriented attacks against a stationary enemy force.
- Force-oriented attacks against a moving enemy force.
- Terrain-oriented attacks.

4-20. ATTACK CHARACTERISTICS

An attack is a type of offensive operation characterized by movement supported by fire. The purpose of an attack is to defeat an enemy force or to seize terrain. The company can attack independently or as part of an SBCT battalion or larger element. The two basic types of attack are the hasty attack and the deliberate attack (see paragraph 4-21). Figure 4-5, page 4-18, illustrates the situations under which a company conducts an attack, compares them to the amount of planning and preparation time required, and provides options for the commander to accomplish his purpose and support the higher commander's intent. All attacks, whether hasty or deliberate, depend on synchronization for success. They require planning, coordination via digital or analog means, and time to prepare.

a. The company commanders translate the mission assigned by the SBCT battalion, through analyzing the task and purpose, into specific missions for subordinate platoons and squads. To facilitate parallel planning, they immediately forward these missions digitally, along with the appropriate portions of the battalion's plans and orders, to subordinate platoons and squads. Commanders and platoon leaders must work together to

develop the best plans; this requires sharing information freely between the command posts. The goal is not simply to reduce the time required to produce and distribute the plans, but, more importantly, to produce a better plan by including input from adjacent, higher, and lower elements. Additionally, this collaboration promotes understanding of the plan, thereby enhancing preparation and execution.

b. The information systems available to the SBCT infantry rifle company facilitate detailed planning. By properly leveraging digital systems and sensors, SBCT infantry company commanders can obtain near-real-time knowledge of enemy composition, locations, activity, and probable intentions. Thus, modern technology improves the company commander's ability to develop his COA and plan his actions against an enemy force from either stationary or moving C2 platforms.

c. As the company plans, the enemy also has time to improve his defenses, disengage, or conduct spoiling attacks of his own. Clearly, planning must be accomplished in the shortest time possible and must accommodate the changes driven by what the enemy does.

Attack Situations / **Planning Time**	**Force-Oriented** Moving Enemy	**Force-Oriented** Stationary Enemy	**Terrain-Oriented**
	Attack Options		
Less Time	• Hasty attack to (destroy, disrupt, block) • Counterattack • Spoiling attack • Ambush	• Hasty attack to (destroy, disrupt, block) • Counterattack • Feint • Demonstration	• Hasty attack to (seize, clear, secure) • Counterattack
More Time	• Deliberate attack to (destroy, disrupt, block) • Counterattack • Spoiling attack • Ambush • Feint • Demonstration	• Deliberate attack to (destroy) • Raid • Counterattack • Feint • Demonstration	• Deliberate attack to (seize, clear, secure) • Counterattack

Figure 4-5. Spectrum of attacks.

4-21. HASTY AND DELIBERATE ATTACKS

Although having different forms based on their purposes, there is no clear distinction between deliberate and hasty attacks. The primary difference between the two is the extent of planning and preparation conducted by the attacking force. Attacks range along a continuum defined at one end by FRAGOs, which direct the rapid execution of battle drills by forces immediately available. These attacks rely on an implicit understanding and electronic communication with detailed orders and appropriate branches and sequels that make understanding explicit. Information on the general enemy situation comes from

a movement to contact, and the company launches a hasty attack as a continuation of the meeting engagement. The hasty attack capitalizes on a temporary advantage in relative combat power and may preempt enemy actions. At the other end of the continuum, the company moves into a deliberate attack from a reserve position or assembly area with detailed knowledge of the enemy, a task organization designed specifically for the attack, and a fully rehearsed plan. Most attacks fall somewhere between these two ends of the continuum.

a. **Hasty Attack.** The commander may conduct a hasty attack during movement to contact, as part of a defense, or whenever he determines that the enemy is in a vulnerable position and can be quickly defeated by immediate offensive action. A hasty attack is used to--

- Exploit a tactical opportunity.
- Maintain the momentum.
- Regain the initiative.
- Prevent the enemy from regaining organization or balance.
- Gain a favorable position that may be lost with time.

Because its primary purpose is to maintain momentum or take advantage of the enemy situation, the hasty attack is normally conducted with only the resources that are immediately available. Maintaining unrelenting pressure through hasty attacks keeps the enemy off balance and makes it difficult for him to react effectively. Rapidly attacking before the enemy can act often results in success even when the combat power ratio is not as favorable as desired. With its emphasis on agility and surprise, however, this type of attack may cause the attacking force to lose a degree of synchronization. To minimize this risk, the commander should maximize use of standard formations; well-rehearsed, thoroughly understood battle drills and SOPs; and digital tools that facilitate rapid planning and preparation. By assigning on-order and be-prepared missions to subordinate companies as the situation warrants, the company is better able to transition into hasty attacks. The hasty attack is often the preferred option during continuous operations. It allows the commander to maintain the momentum of friendly operations while denying the enemy the time needed to prepare his defenses and to recover from losses suffered during previous action. Hasty attacks normally result from a movement to contact, successful defense, or continuation of a previous attack.

(1) ***Task Organization.*** The hasty attack is conducted using the principles of fire and movement. The controlling headquarters normally designates a base of fire force and a maneuver force.

(2) ***Conduct of the Hasty Attack.*** The company must first conduct actions on contact, allowing the commander to gather the information he needs to make an informed decision. The term "hasty" refers to limits on planning and preparation time, not to any acceleration in the conduct of actions on contact. Because the intelligence picture is vague, the commander normally needs more time, rather than less, during this process to gain adequate information about the enemy force.

(a) Execution begins with establishment of a base of fire, which then suppresses the enemy force. The maneuver force uses a combination of techniques to maintain its security as it advances in contact to a position of advantage. These techniques include, but are not limited to, the following:

- Use of internal base of fire and bounding elements.
- Use of covered and concealed routes.
- Use of indirect fires to suppress or obscure the enemy or to screen friendly movement.
- Execution of bold maneuver that initially takes the maneuver force out of enemy direct fire range.

(b) Once the maneuver force has gained the positional advantage, it can execute a tactical task, such as assault, to destroy the remaining enemy.

b. **Deliberate Attack.** The SBCT infantry rifle company conducts a deliberate attack only when the enemy's strength prevents it from conducting a hasty attack. It normally conducts a deliberate attack against a strong enemy defense. As the company prepares for the attack, the enemy also continues to strengthen his position. Deliberate attacks follow a distinct period of preparation, which is used for extensive reconnaissance and intelligence collection, detailed planning, task organization of forces, preparation of troops and equipment, coordination, rehearsals, and plan refinement. The deliberate attack is a fully synchronized operation that employs every available asset against the enemy defense. It is characterized by a high volume of planned fires, use of major supporting attacks, forward positioning of resources needed to maintain momentum, and operations throughout the depth of enemy positions. Thorough preparation allows the attacking force to stage a combined arms and fully integrated attack. Likewise, however, the enemy will have more time to prepare his defensive positions and integrate fires and obstacles. The factors of METT-TC dictate how thoroughly these activities are accomplished. The commander normally conducts a deliberate attack when enemy positions are too strong to overcome by a hasty attack. In weighing his decision to take the time required to prepare for and conduct the deliberate attack, he must consider the advantages that may be gained by both friendly and enemy forces.

(1) ***Task Organization.*** The SBCT company commander normally task-organizes the company into support and assault forces for conduct of a deliberate attack. He also designates a breach force if the company must conduct a breach as part of the attack. Specific duties of these elements are covered in the discussion of a company-level assault of a strongpoint and tactical tasks (paragraph 4-35).

(2) ***Conduct of the Deliberate Attack.*** The SBCT infantry company's deliberate attack normally is broken into the following steps:

(a) *Attack in Zone*. The attacking SBCT company advances to within assault distance of the enemy position under supporting fires and using any combination of movement techniques. Platoons advance to successive positions using available cover and concealment. The company commander may designate support by fire positions to protect friendly forces with suppressive direct fires. As the company maneuvers in zone, it employs lethal and nonlethal fires to suppress and obscure enemy positions.

(b) *Actions at the Probable Line of Deployment (PLD)*. The PLD is normally a phase line or checkpoint where elements of the attacking company transition to secure movement techniques in preparation for contact with the enemy. Platoons may maneuver from the PLD to designated support-by-fire positions, assault positions, or breach or bypass sites. The PLD may be collocated with the assault position.

(c) *Actions on the Objective*. The final assault combines the effects of overwhelming combat power and suppressive fires with the use of maneuver to gain positional

advantage over the defending enemy. Suppressive fires from support forces and from supporting indirect fire assets isolate the objective area and suppress the enemy. These fires protect the assault force as it closes with the enemy. Other measures the SBCT infantry company may use to set the conditions for the final assault include, but are not limited to, the following:

- MGS platoon employment.
- Employment of mortar, artillery, direct fires, or a combination of these, from support-by-fire positions to destroy enemy forces on the objective or to isolate enemy forces on the objective and create favorable force ratios.
- Use of obscuring smoke.

Once the conditions are set, the assault forces maneuver to close with and destroy the enemy. Other SBCT infantry company elements continue to provide support as necessary throughout the assault.

4-22. ATTACKS DURING LIMITED VISIBILITY

Effective use of digitized and own the night (OTN) equipment during limited visibility attacks enhances squad and platoon ability to achieve surprise and causes panic in a lesser-equipped enemy. OTN enhancements allow the infantry soldier to see farther and with greater clarity. The OTN enhancements and increased friendly and enemy information afford a marked advantage over the enemy. (Refer to paragraph 4-36 for a detailed discussion of limited visibility attacks.)

Section VI. OTHER OFFENSIVE OPERATIONS

The SBCT infantry rifle company normally conducts other offensive operations--movement to contact, exploitation, and pursuit--as part of an SBCT infantry battalion or larger element.

4-23. PLANNING CONSIDERATIONS

The purpose of movement to contact is to gain or regain contact with the enemy. It is most appropriate when the enemy situation is vague and there is not time to reconnoiter extensively to locate the enemy. Because of the increased amount of intelligence available through the RSTA assets, US forces execute movement to contact less frequently than in the past. Movement to contact ends when contact is made. (Contact results in initiation of another operation such as attack against a stationary or moving enemy force, defense, delay, or withdrawal.) The SBCT infantry rifle company normally conducts movement to contact as part of an SBCT battalion or larger element. Based on the factors of METT-TC, however, it can conduct the operation independently. As an example, the company may conduct movement to contact prior to occupation of a screen line. Because the enemy situation is not clear, the company moves in a way that provides security and supports a rapid buildup of combat power against enemy units once they are identified. Two techniques for conducting a movement to contact are the search-and-attack technique and the approach-march technique. If no contact occurs, the company may be directed to conduct consolidation on the objective. The following paragraphs examine the role of the company in a battalion-level movement to contact.

a. **Fundamentals.** The SBCT infantry rifle company commander analyzes the situation and selects the proper tactics to conduct the mission. He reports all information

rapidly and accurately and strives to gain and maintain contact with the enemy. He retains freedom of maneuver by moving the company in a manner that--

- Makes enemy contact with the smallest element possible (ideally, a reconnaissance and surveillance [R&S] element).
- Rapidly develops combat power upon enemy contact.
- Provides all-round security for the unit.
- Supports the battalion concept.

4-24. THE SEARCH-AND-ATTACK TECHNIQUE

This decentralized technique uses multiple, coordinated, small-unit (team, squad, or platoon) actions to find the enemy. If the company makes contact without being detected by the enemy, the commander gains the initiative. He then has the option to destroy the enemy with the immediately available combat potential, to maneuver the remainder of the company to destroy the enemy, or to follow the enemy back to his base camp and destroy him there. During his planning, the SBCT infantry commander decides how to find the enemy, how to fix or follow him, and then how to finish him.

a. **Concept Development.** Initially, the decisive points are identified as the most likely enemy locations. Once the enemy has been located, the specific decisive point must be determined as in any attack, and a concept must be developed for generating overwhelming combat power there. The initial concept must include the actions to finish the enemy force once they are located. At times, this part of the plan may be very general or consist only of control measures and be-prepared missions to provide flexibility and to support the rapid issuance of FRAGOs.

(1) The commander must understand the battalion commander's concept and what freedom of action the company has to engage the enemy. At times, the company must engage and destroy all enemy forces within their capabilities. In other cases, the company must locate, follow, and report small enemy units to allow the battalion to concentrate and destroy these forces.

(2) The commander focuses the platoons and squads on the likely enemy locations. He assigns missions IAW the battalion commander's concept. Possible operations include a zone or area reconnaissance, an ambush, or surveillance. The small-unit leaders must know what actions to take when they locate the enemy either with or without being detected. The platoon most likely to make contact normally is designated the main effort.

b. **Considerations.** The commander determines the number and size of the units that will conduct reconnaissance and combat actions against the enemy. The size of the area, the duration of the mission, the soldier's load, and the probable size of the enemy force are key to this decision.

(1) The size of the area of operations is considered in relation to how much time is available to search the area. When allocating terrain, the commander must consider how the platoons will conduct the reconnaissance, how to provide security, and how to provide control.

(a) One technique is to assign small AOs that keep the platoons more concentrated and help maintain control. The platoons move into the next AO on order.

(b) Another technique is to divide the company area into zones. The commander concentrates most of the company in one zone and uses fire team or squad patrols to reconnoiter the next zone or the rest of the area. Once the company (-) has completed the

reconnaissance in the initial zone, it moves into the area the small units have reconnoitered. This technique is effective when a detailed reconnaissance is required, but it also supports the seizure of the initiative through speed, stealth, and surprise. The small, dispersed units have a better chance of locating the enemy undetected. They also provide initial reconnaissance information on which the commander focuses the remainder of the company's reconnaissance efforts.

(2) The commander must consider how the duration of the mission affects the company's ability to conduct contingency operations. If the mission will continue for days or longer, the commander must develop a concept that allows his subordinates to maintain combat effectiveness. The concept must address the use of patrol bases and limited visibility operations. The commander must ensure that the concept provides sufficient rest to maintain his soldiers' stealth, alertness, and security.

(3) The duration of the mission also affects the soldier's load, which has a tremendous impact on a search-and-attack mission. The longer the mission is expected to last, the heavier the soldiers' loads may need to be to reduce the need for resupply. The ability to move with stealth and security while close to the enemy is hindered by heavy loads, but resupply operations also may hinder the company's operation and allow the enemy to locate the unit by following or observing the resupply vehicles.

(a) The company commander must determine what the essential requirements are for the soldiers' loads. If this results in excessive loads, he plans for resupply operations that avoid enemy detection and maintain the security of the company.

(b) The company commander may combine techniques to reduce the risk of moving with these heavy loads. He identifies objective rally points (ORPs) or company patrol bases throughout the AO, and the company moves between these ORPs using the approach-march technique to provide greater control and security. After securing and occupying the ORP, the platoons leave their rucksacks and move out to conduct decentralized search-and-attack operations. A security force secures the ORP until the units return to get their rucksacks and move to the next ORP. Platoons can use this same technique when the risk is acceptable.

(4) Knowing the size of the enemy units with which the company is likely to make contact assists the company commander in determining the risk to the company. The company commander also must consider the enemy's capabilities, likely COAs, and specific weapons capabilities to understand the threat and ensure the security of his company, even when conducting decentralized operations. The company commander may direct specific force protection restraints such as "no patrols smaller than a squad," "platoons must be able to consolidate within 20 minutes," or "platoons will depart their patrol bases NLT 60 minutes prior to BMNT."

c. **Find the Enemy.** During this step, the focus is on reconnaissance to locate the enemy. Generally, small units able to move quickly and with stealth are more likely to locate the enemy without detection. The company commander's concept may restrict the platoon's authority to destroy the enemy once located. It may be more important to locate and follow enemy units to identify their base camps. When not restricted, however, the unit making contact takes immediate action to destroy the enemy. If it is not within this unit's capabilities, the platoon conducts linkups to mass sufficient combat potential and to coordinate the attack.

(1) Platoons normally do not receive a mission with the vague requirement to search and attack. The company commander must be more specific in stating his concept. His concept must also address the likely actions to destroy the enemy once they are located. Specific taskings may include route, area, and zone reconnaissance or surveillance tasks. Platoons also may be tasked to conduct ambushes, to be prepared to conduct an attack to destroy enemy forces, to provide security for another force such as the CP or the mortar section, or to act as the company reserve.

(2) During limited visibility, reconnaissance is more difficult and potentially more dangerous. If a unit makes contact with the enemy in the dark, a hasty attack is very risky. Reconnaissance is also less effective in the dark because the unit covers less area and is unable to detect many signs of enemy activity. Although observation is reduced during limited visibility, the unit may be more likely to detect the enemy by sight or smell. Route and small-area reconnaissance tasks are more effective for limited visibility.

(3) Ambushes are effective during limited visibility. The enemy may avoid daylight movements if aware of the company's presence in the AO. Ambushes should be set up on the enemy's likely routes or near their water and food sources. Patrol bases should integrate ambushes and observation posts (OPs) (with thermal sights, NVDs, and platoon early warning systems [PEWS]) into their security plans. These tasks support the seizure and maintenance of the initiative.

d. **Fix and Finish the Enemy.** These steps of a search and attack are closely related. An initial attempt to finish the enemy by the platoon in contact may quickly become the fixing effort for the company's attack if the enemy is too strong for the platoon or the platoon is unable to achieve surprise. When the authority to conduct offensive actions to destroy the enemy has been decentralized to the lowest level, the fundamentals of an attack apply at every echelon.

(1) ***Achieve Surprise.*** Locate the enemy without being detected. This allows more time to plan and coordinate the attack. Once detected, speed and violence in the assault may also achieve surprise, but this is rarely true against a prepared enemy defense.

(2) ***Limit the Enemy's Freedom of Action.*** Fix the enemy in position. Block his routes of escape with indirect fires, maneuver forces, or both. Suppress his weapons systems, obscure his vision, and disrupt his command and control. Reconnaissance is continuous; leaders at every echelon seek out the enemy's dispositions, strengths, and weaknesses. Initially, these actions are directed toward supporting an attack by the lowest echelon. At some point, the leader of this unit must determine if he is able to achieve fire superiority and conduct the assault. If he determines he does not have sufficient combat power to complete the destruction of the enemy, the leader focuses on fixing the enemy and reconnoitering to support the attack by the next higher echelon.

(3) ***Maintain Security.*** While attempting to take these actions against the enemy, the enemy is attempting to do the same. Do not assume the enemy that has been identified is alone; there may be mutually supporting positions or units. The planned envelopment or flank attack of one enemy position may move through the kill zone of another unit, or this maneuver may expose the flank of the assault force to fires from undetected positions.

(4) ***Concentrate Combat Power.*** Once contact is made, the plan must support the rapid concentration of combat power to fix and destroy (finish) the enemy. Leaders at

each echelon plan to destroy the enemy within their capabilities. The combat potential of small units may be increased by ensuring each has the ability to request fire support.

(a) The company commander may retain a portion of the company in reserve to react quickly to enemy contact by one of the small units. However, when the company is operating in a more dispersed manner, this company reserve may not be responsive enough. It may be more effective for each platoon to retain its own reserve.

(b) If the unit or platoon cannot finish the enemy, the company commander determines how to fix or contain the enemy while concentrating his dispersed combat potential. He then develops an attack plan to destroy the enemy force. He may use the fixing force to support by fire and assault with another platoon(s), or he may use artillery and CAS to destroy him in position.

(c) Each leader must report the results of his reconnaissance to support the company commander's planning. Leaders recommend effective support positions, good assault positions or directions of attack, and likely enemy weak points. The leader of the unit in contact should also identify good linkup points in case the preplanned points are not effective. In most cases, this leader should coordinate face to face with the company commander or the leader of the assault element before initiating the assault.

e. **Follow the Enemy.** When the purpose of the operation is to locate the enemy's base camps or other fixed sites, the company concept must avoid nondecisive fights between small units. When friendly units locate small enemy units, they report and attempt to follow or track these units back to their base camps. Well-trained trackers familiar with the area may be able to identify and follow enemy tracks that are hours or even days old (FM 7-8). The company commander must ensure that his concept does not risk the security of his force in the attempt to make undetected contact and track enemy units. Units tracking the enemy must be ready to react to enemy contact and avoid likely ambush situations. It also may be possible to track the enemy's movement through the AO by using stationary OPs as trail watchers to report enemy activity.

f. **Enter the Area of Operations.** The company commander decides how the company will enter its zone or area of operations, how to move once in the area, where to locate certain units or facilities, and what the requirements for contingency plans are. This includes establishing the proper graphic control measures to control the movement of the units, to provide for linkups between units, and to support the rapid concentration of the company's combat power. It also includes synchronizing the actions of the company and providing specific tasks or restraints to ensure subordinates understand what actions to take once they make contact with the enemy. The company may enter the area or zone by moving as a company and then splitting up (Figure 4-6, page 4-26), by infiltrating squads and platoons (Figure 4-7, page 4-26), or by air assault.

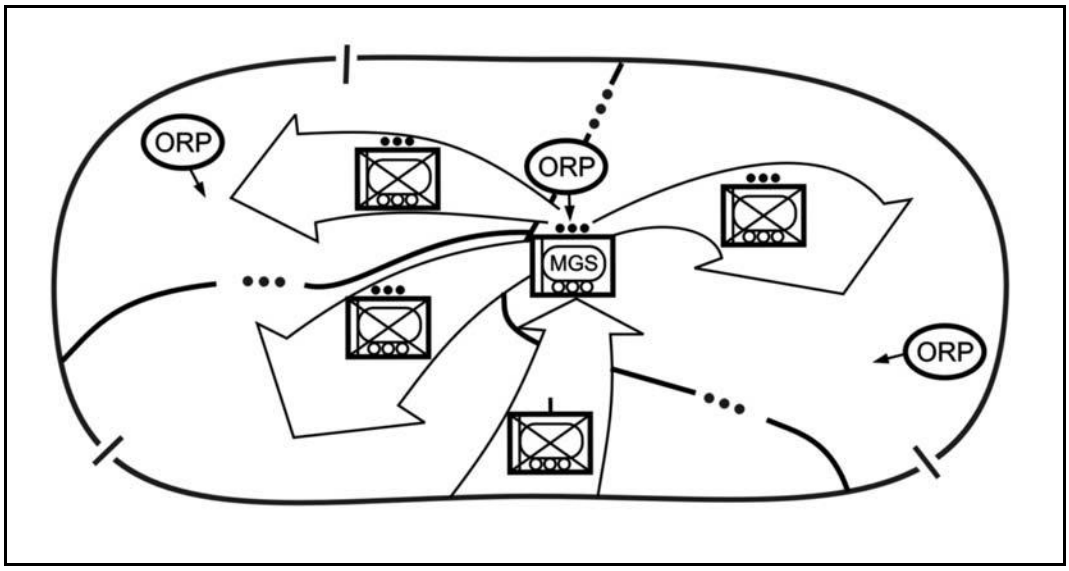


Figure 4-6. Infiltration by company.

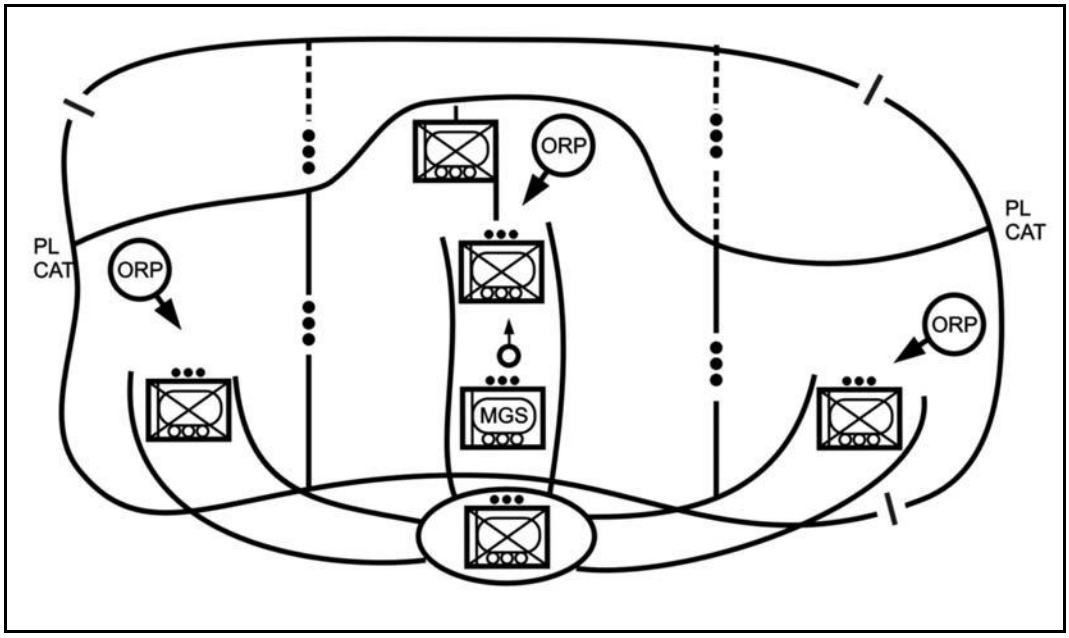


Figure 4-7. Infiltration by squad/platoon.

(1) Movement within the area or through the zone of attack may be conducted by the entire company or by individual platoons. Figure 4-8 shows a concept sketch for a search and attack conducted without a company linkup.

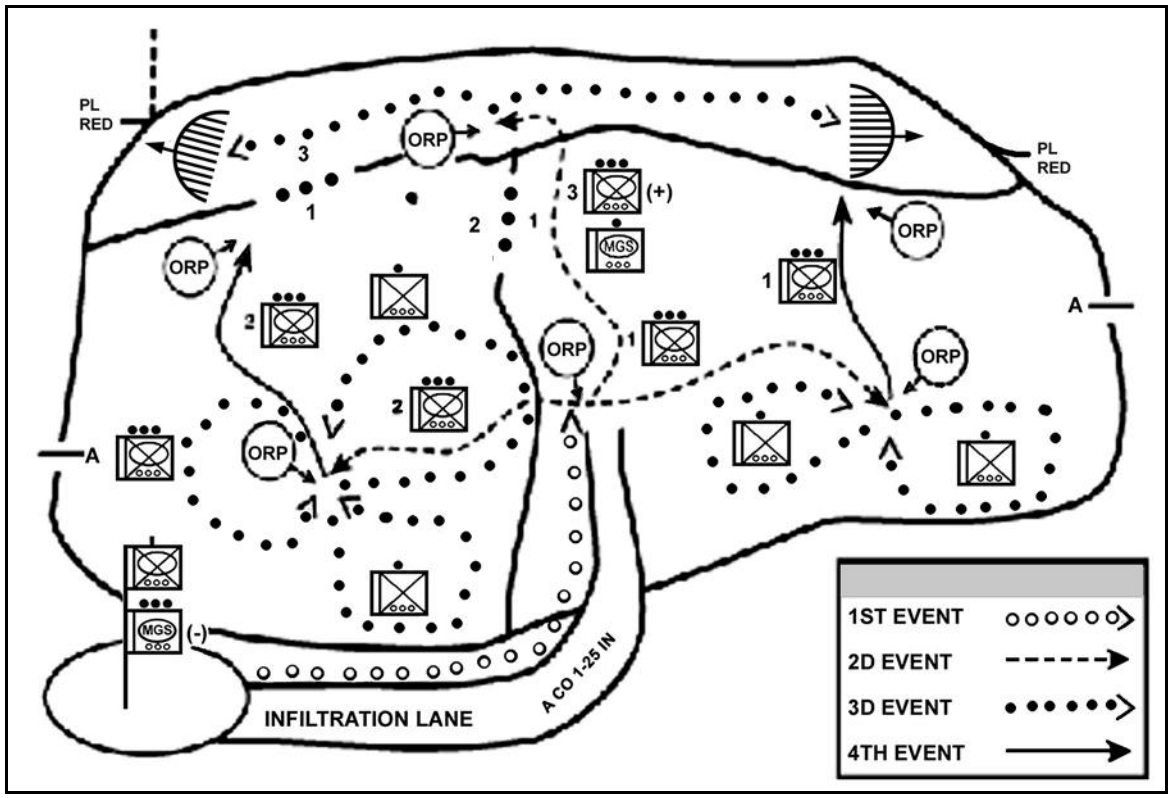


Figure 4-8. Company search-and-attack concept sketch.

(2) The SBCT infantry rifle company commander must decide where the company CP will locate. He may collocate it with the main effort platoon or position it in a central location where it can communicate with and move quickly to each platoon's location. A technique to support contingency operations (CONOPS) is to rotate a reserve platoon each day to provide security for the CP and the company mortars. To prevent a serious degradation in effectiveness due to sleep loss, each platoon spends only 48 hours actively searching for the enemy and then rotates into the reserve role.

(3) Company mortars must locate where they have security and can support the platoons. The company commander may collocate the mortars with the company CP. To overcome the difficulties of moving mortar ammunition, the company commander may direct the reserve platoon to carry the ammunition to the next firing position. Another option is to establish company ORPs or patrol bases and place the mortars at these locations. The entire company can then carry the mortar ammunition; the soldiers drop off the rounds before moving out to the platoon areas. However, the entire company must return to this location before continuing the operation through the zone.

(4) The soldier's load and the threat of enemy armor are two primary considerations for employing the antiarmor assets. If there is an armored threat, the company commander must provide guidance to platoon leaders on where to position the antiarmor assets. If the threat does not require antiarmor weapons, the platoons may still use some thermal sights for observation.

(5) Contingency plans may include actions in case one platoon becomes decisively engaged or the company receives a new mission. All units should routinely report

possible landing zone/pick-up zone (LZ/PZ) locations, mortar firing positions, any sign of recent enemy activity, and any sightings of civilians in the area.

4-25. THE APPROACH-MARCH TECHNIQUE

The SBCT infantry rifle company normally uses this technique when it conducts a movement to contact as part of the battalion. The company can act as the advance guard, move as part of the battalion main body, or provide flank or rear guards for the battalion, depending on its location in the formation and its assigned mission.

a. **Planning.** When planning for an approach-march movement to contact, the company commander needs certain information from the battalion commander. With this information, the company commander develops his scheme of maneuver and fire support plan. He provides this same information to the platoon leaders. As a minimum, he needs to know--

- The company's mission.
- The friendly and enemy situations.
- The route (axis of advance) and the desired rate of movement.
- The control measures to be used.
- The company's actions on contact.
- The fire support plan.
- The company's actions upon reaching the march objective, if one is used.

b. **Lead Company Responsibilities.** The SBCT battalion may conduct a movement to contact on a single axis or on multiple axes. The lead company on an axis is responsible for--

- Protecting the battalion from a surprise attack by providing early warning of enemy positions and obstacles.
- Assisting the forward movement of the battalion by removing obstacles or finding routes around them.
- Destroying enemy forces (within its capability).
- Rapidly developing the situation once contact is made.

c. **Lead Company Movement.** The lead company or advance guard on an axis moves using traveling overwatch or bounding overwatch, depending on the situation. It normally is assigned an axis of advance or a zone of action and a march objective on which to orient its movement. Phase lines and checkpoints also can help control movement.

(1) The company commander selects the movement technique and formation based on the likelihood of enemy contact and the speed of movement desired by the battalion commander. Bounding overwatch provides the best security, but traveling overwatch is faster. If the company uses traveling overwatch, the lead platoon may use bounding overwatch for added security.

(2) The company commander must retain the freedom to maneuver his platoons and weapons. He analyzes the terrain, anticipates where he might make contact, and plans fires on those locations. He should avoid terrain that restricts maneuver, such as draws, ravines, narrow trails, and steep slopes.

d. **Other Companies.** A company not in the lead uses traveling or traveling overwatch. It must be ready to fire or maneuver in support of the lead company, or to assume the lead company's mission.

e. **Contact.** Once the company makes contact with the enemy, the company commander maintains that contact until ordered to do otherwise by the battalion commander. The following actions must take place at once:

(1) When there is an unexpected contact, the platoon in contact returns fire at once and takes cover. If the enemy is unaware, the platoon making contact reports and deploys to prevent detection. The maneuver to a position of advantage by this platoon (or other units) should maintain the element of surprise until the company completes preparation for the hasty attack. If detected, or once the company commander decides to initiate the hasty attack, the platoon leader attempts to fight through, destroying the enemy with the resources that are immediately available. His FIST should begin calling for fire. The platoon leader then reports to the company commander and develops the situation. The overwatch element immediately fires at the enemy position. Trail platoons that are not able to fire take cover and wait for orders.

(2) The squad or platoon that initially received direct fire immediately executes the attack drill (FM 3-21.9 [FM7-5]). The intent is to use aggressive small-unit actions to seize the initiative rapidly and at the lowest echelon possible. The unit in contact attempts to achieve fire superiority to fix or suppress the enemy with the resources that are immediately available. The unit then executes a flank attack directed against an identified enemy weakness. If this is not possible, the unit develops the situation to identify the enemy's flanks, any covered and concealed routes around the enemy position, possible supporting positions (both friendly and enemy), and any protective obstacles that the enemy has constructed. It then reports this information to the company commander.

(3) Upon receipt of this information, the company commander determines the proper action to take. The XO reports the situation to battalion. The company commander may conduct, or direct his units to conduct, additional reconnaissance. The company FSO requests and coordinates indirect fires to support the company's maneuver. Possible actions include the following.

(a) *Conduct a Hasty Attack.* If the company commander feels he can defeat the enemy force and an attack supports the battalion commander's concept, he conducts a hasty attack immediately, before the enemy can react.

(b) *Bypass the Enemy*. The company commander, with battalion permission, may bypass an enemy force. He may bypass the enemy with one platoon at a time or with the entire company at once (Figure 4-9, page 4-30).

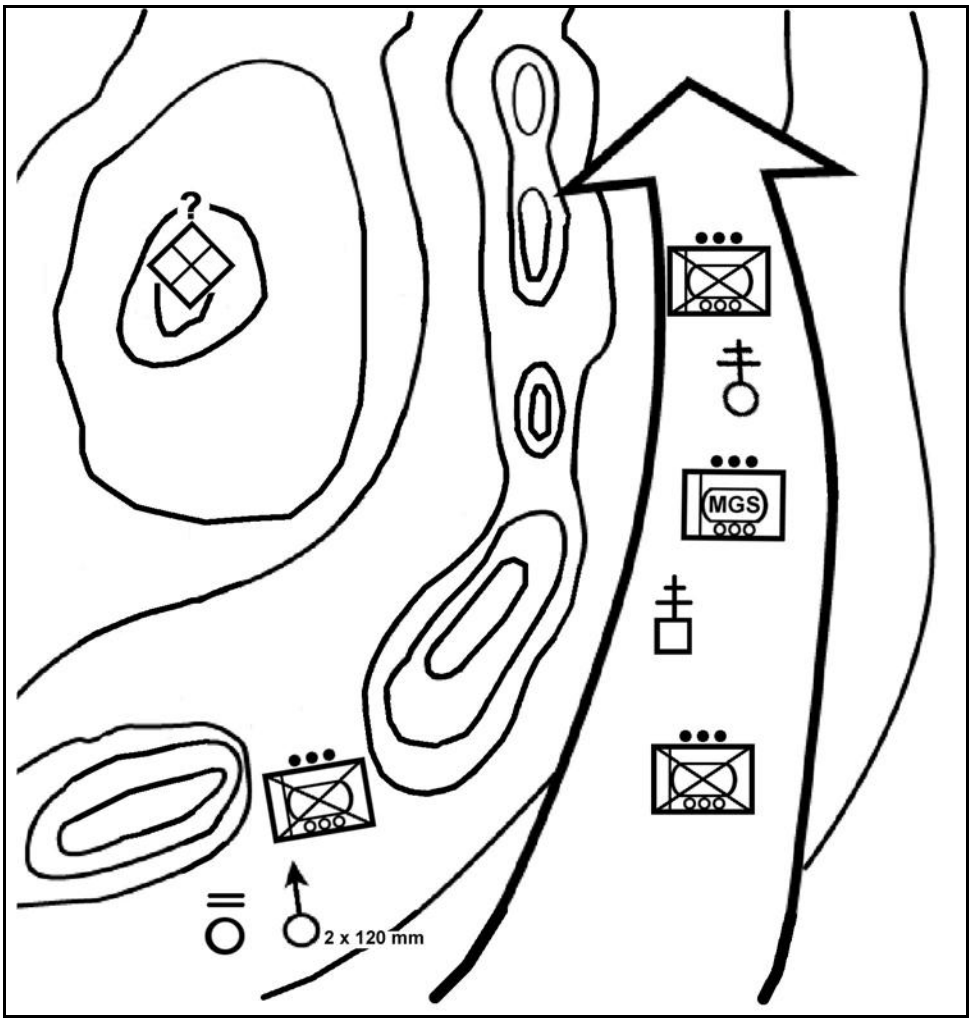


Figure 4-9. Bypass.

(c) *Fix or Suppress the Enemy.* When the enemy cannot be bypassed and a hasty attack by the company would be too costly, the battalion normally directs the company to fix or suppress the enemy (Figure 4-10). This ensures that the enemy does not have the freedom to fire or maneuver against the main body of the battalion while the battalion moves to attack the enemy. The company commander supports the battalion commander's planning by reconnoitering to identify the enemy's disposition, strengths, and weaknesses. The company identifies covered and concealed routes, good support positions, and enemy obstacles and reports these to battalion.

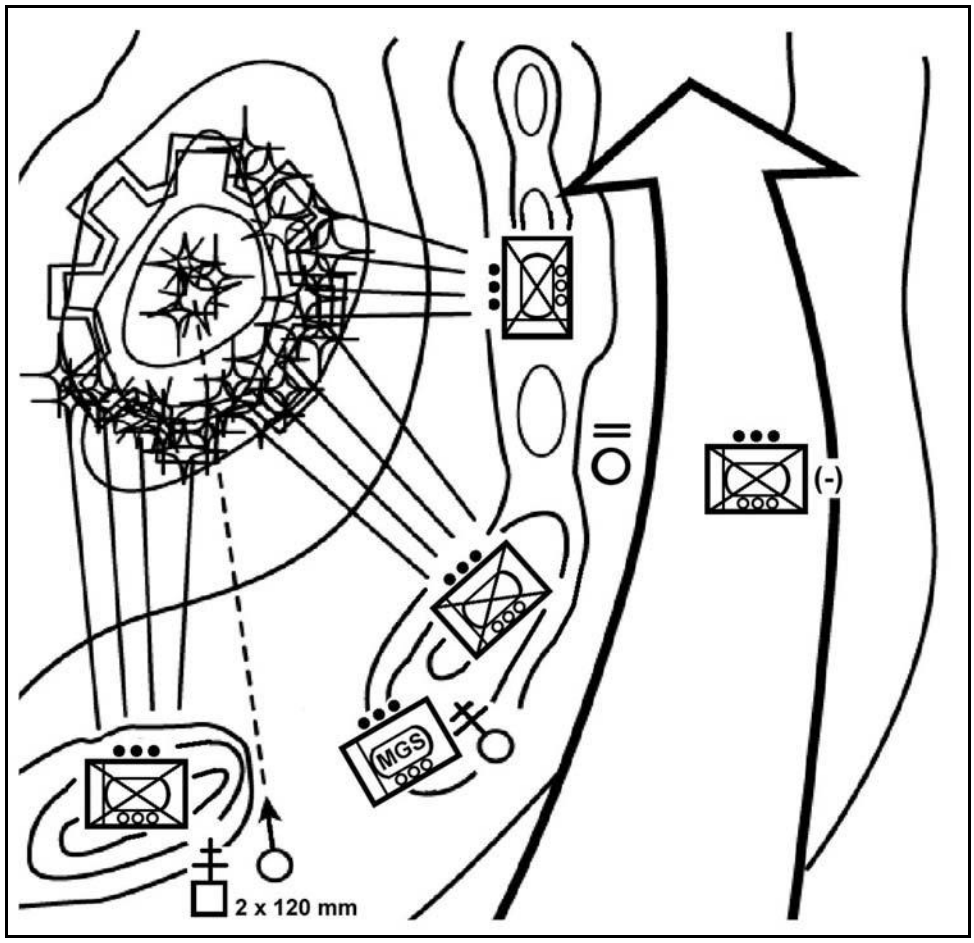


Figure 4-10. Fix or suppress.

(d) *Establish a Hasty Defense.* Although this action tends to give the initiative to the enemy force, it might provide a needed advantage. This might be required in a meeting engagement with a superior force. The company may establish a hasty defense to protect itself while the remainder of the battalion maneuvers against the enemy.

(e) *Disengage.* This action is not preferred unless disengaging is the only way to ensure preservation of the force. Use of indirect fires and bounding and overwatch elements is essential in disengaging from a superior force. The company may disengage while another unit maintains contact, or the company may disengage by moving back through the battalion to draw the enemy into an ambush.

4-26. CONSIDERATIONS

The battalion may direct the company's technique (search-and-attack or approach-march). If not, the SBCT infantry rifle company commander considers his mission and the battalion concept as he conducts his estimate to select the best technique. Normally, when operating as part of a battalion movement to contact, the company employs the same technique as the battalion. The commander must consider the mounted capabilities of his company during both techniques. The following considerations may also assist the commander in developing his concept.

a. **Time Available.** The time available for planning, coordinating, and rehearsing may affect the decision. The approach-march technique generally requires much less time for preparation. The company may require only a brief FRAGO assigning the movement formation or technique and some simple graphic control measures to begin movement. The search-and-attack technique may require more preparation time because the platoons and squads have more planning responsibilities (such as patrol base, linkups, and casualty evacuations).

b. **Speed of Movement.** The speed the company must move is a major factor. With either technique, the faster the company moves, the less effective its R&S efforts are. Thus, it becomes more likely that the enemy will initiate fires at the time and place he selects. The approach-march technique is normally more effective for quickly reacting to enemy contacts.

c. **Enemy.** The company commander considers the clarity of the enemy situation. If the enemy situation is vague then a movement to contact is required; however the SBCT company commander should have some information via analog activities or digital information. Knowing where the enemy will probably locate and in what strength is key to developing a concept. The company commander considers the enemy's probable locations and strength when planning the company's movement and security needs, and he analyzes the risks for each technique. The company commander also considers the expected enemy action upon contact. If he expects the enemy to fight, then the approach march may be the more effective technique. If the enemy will attempt to avoid detection or quickly disengage, the search-and-attack technique may be the better method.

d. **Security.** Preparation time, required movement speed, and the enemy situation have a direct impact on the company's security requirements. The company commander also considers the terrain, the adjacent units, the available combat support, and the present status of his unit to determine how to provide security for his company. Successful movements to contact depend on locating the enemy without being detected. This provides the company commander the initiative to develop the situation by fully coordinating and supporting the attack with all available resources.

e. **Combined Technique.** An effective option may be to combine the techniques by having the lead platoon use the search-and-attack technique while the rest of the unit uses the approach-march technique. The lead platoon is assigned reconnaissance missions to find the enemy. In the example illustrated in Figure 4-11, the company commander assigns route reconnaissance tasks to the 2d Platoon. He assigns checkpoints and named areas of interest (NAIs) to focus the subordinate elements on specific locations. He can also use phase lines (PLs) to control the lead platoon by directing that PLs be crossed on order. The company main body follows the reconnaissance at a distance that allows it to rapidly maneuver based on reports from the lead platoon. The formation and movement techniques for the main body vary but generally apply the fundamentals for the approach-march technique.

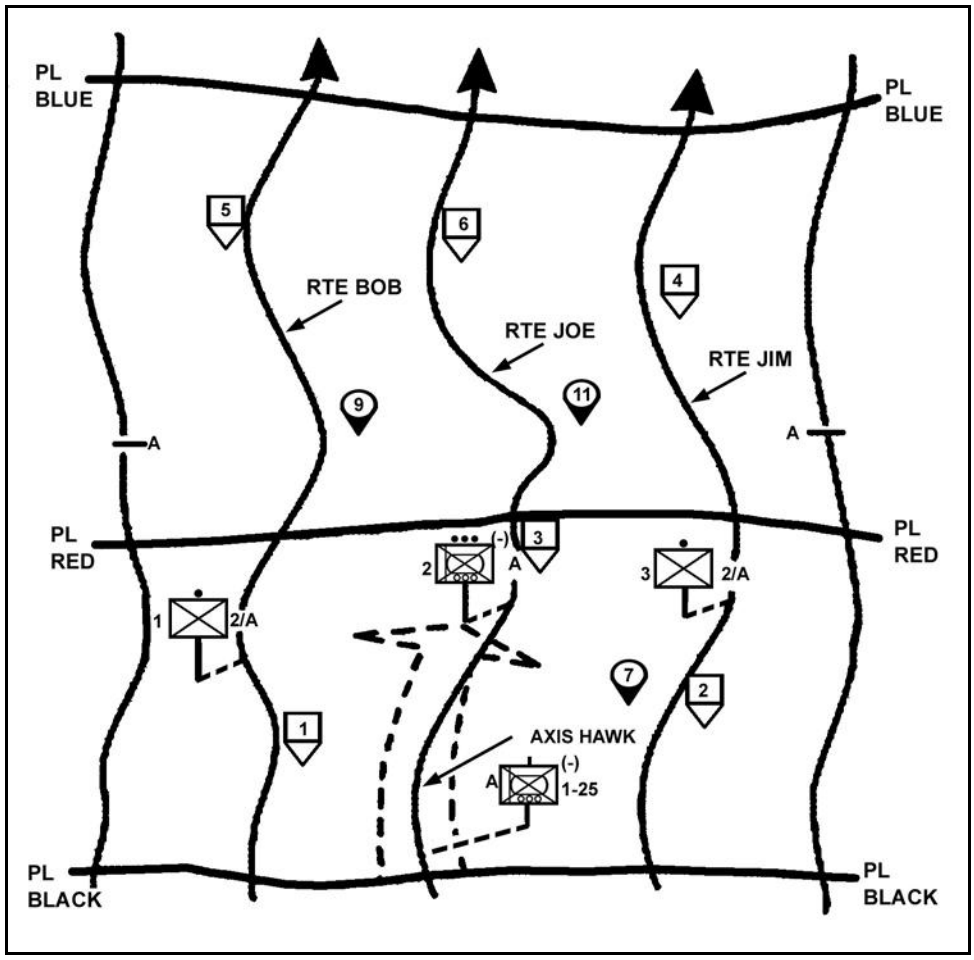


Figure 4-11. Combined techniques.

4-27. EXPLOITATION

A company normally takes part in exploitations as part of a larger force; however, the company should exploit tactical success at the local level within the higher commanders' concept of the operation.

4-28. PURSUIT

The objective of the pursuit phase of an operation is the total destruction of the enemy force. The SBCT infantry rifle company may take part in a pursuit as part of a larger force or, because of its organic transportation, may act as the pursuit force that can close with and destroy the remnants of the enemy force.

Section VII. SPECIAL PURPOSE ATTACKS

The company conducts a special purpose attack at the direction of the battalion commander. The commander bases his decision on the factors of METT-TC. Special purpose attacks are subordinate forms of an attack and they include--

- Ambush.
- Raid.
- Counterattack.

- Spoiling attack.
- Feint.
- Demonstration

As forms of the attack, they share many of the same planning, preparation, and execution considerations of the offense. Feints and demonstrations are also associated with military deception operations.

4-29. AMBUSH

An ambush is a surprise attack, from concealed positions, on a moving or temporarily halted enemy. It may take the form of an assault to close with and destroy the enemy, or it may be an attack by fire only, executed from concealed positions. An ambush does not require that ground be seized or held. Infantry forces normally conduct ambushes. (For a more detailed discussion of ambushes, refer to FM 7-10.)

a. **Purposes.** Ambushes are generally executed to reduce the enemy force's overall combat effectiveness. Destruction is the primary reason for conducting an ambush. Other reasons to conduct ambushes are to harass the enemy, capture the enemy, and destroy or capture enemy equipment and supplies.

b. **Operational Considerations.** The execution of an ambush is offensive in nature. The company, however, may be directed to conduct an ambush in a wide variety of situations. For example, it may stage the ambush during offensive or defensive operations, as part of SBCT battalion rear area operations, or during retrograde operations. The commander must consider the capabilities of his company in the mounted and dismounted role. Operational security is critical to the success of an ambush and is a major reason the operation normally is conducted only by infantry forces. The company must take all necessary precautions to ensure that it is not detected during movement to or preparation of the ambush site. The company must also have a secure route of withdrawal following the ambush.

c. **Actions.** An ambush normally consists of the following actions:

- Tactical movement to the ORP.
- Reconnaissance of the ambush site.
- Establishment of ambush site security.
- Preparation of the ambush site.
- Execution of the ambush.
- Withdrawal.

d. **Task Organization.** The company normally is task-organized into assault, support, and security forces for the execution of the ambush.

(1) ***Support Force.*** The support force fixes the enemy force and prevents it from moving out of the kill zone, allowing the assault force to conduct the ambush. The support force generally uses direct fires in this role, but it also may be responsible for calling for indirect fires to further fix the ambushed force.

(2) ***Assault Force.*** The assault force executes the ambush. It may employ an attack by fire, an assault, or a combination of those techniques to destroy the ambushed force.

(3) ***Security Force.*** The security force provides protection and early warning to the ambush patrol and secures the ORP. It isolates the ambush area both to prevent the ambushed enemy force from moving out of the ambush site and to keep enemy rescue

elements from reaching the site. The security force also may be responsible for securing the company's withdrawal route.

e. **Types of Ambushes.** Once the company receives an order to conduct an ambush, the commander must determine which of the two types of ambush operations is best suited to the situation and the capabilities of his company. In a *point ambush*, the patrol deploys to attack an enemy force in a single kill zone. In an *area ambush*, the patrol is deployed to conduct several related point ambushes throughout an ambush area.

4-30. RAID

A raid is a limited-objective form of attack entailing swift penetration of hostile terrain. A raid operation always ends with a planned withdrawal to a friendly location upon the completion of the assigned mission. It is not intended to hold territory. The company can conduct an independent point raid or it can participate in a battalion area raid. A *point raid* attacks the enemy force in a single kill zone; an *area raid* encompasses several related point raids or other related operations. It is unlikely that a company would conduct an area raid independently.

a. **Company Role.** The company conducts raids to accomplish a number of missions, including the following:

- Capture prisoners.
- Capture or destroy specific command and control locations.
- Destroy logistical areas.
- Obtain information concerning enemy locations, dispositions, strength, intentions, or methods of operation.
- Confuse the enemy or disrupt his plans.

b. **Task Organization.** Task organization of a raiding force is based on the purpose of the operation. It normally consists of the following elements:

- Support force (with the task of support by fire).
- Assault force (with the task of destroy).
- Breach force (if required).

c. **Conduct of the Raid.** The main differences between a raid and other attack forms are the limited objectives of the raid and the associated withdrawal following completion. Raids may be conducted in daylight or darkness, within or beyond supporting distance of the parent unit. When the area to be raided is beyond supporting distance of friendly lines, the raiding party operates as a separate force. An objective, usually very specific in nature, normally is assigned to orient the raiding unit. During the withdrawal, the attacking force should use a route or axis different from that used to conduct the raid itself.

4-31. SPOILING ATTACK

A spoiling attack is a limited-objective attack to delay, disrupt, or destroy the enemy's capability to attack. SBCT infantry commanders mount spoiling attacks from defensive postures to disrupt expected enemy attacks. A spoiling attack attempts to strike the enemy while he is most vulnerable--during his preparations for attack in assembly areas and attack positions or while he is on the move prior to crossing his line of departure. In most respects, commanders conduct spoiling attacks like any other attack. They may be either

hasty (when time is short) or deliberate (when the command has adequate forewarning). When the situation permits, commanders exploit a spoiling attack like any other attack.

4-32. COUNTERATTACK

A counterattack is an attack by defensive forces to regain the initiative or to deny the enemy success with his attack. Commanders conduct counterattacks either with a reserve or with lightly committed forward elements. They counterattack after the enemy launches his attack, reveals his main effort, or creates an assailable flank. SBCT infantry commanders conduct counterattacks much like other attacks but synchronizing them within the overall defensive effort requires careful timing.

a. **Commitment of Combat Power.** Counterattacks afford the defender the opportunity to create favorable conditions for the commitment of combat power. If it can fix the enemy, then the company can rehearse counterattacks, control their timing, and prepare the ground to be traversed. Counterattacks are most useful when they are anticipated, planned, and executed in coordination with other defending, delaying, or attacking forces and in conjunction with a higher commander's plan.

b. **Exploit Success.** As in spoiling attacks, commanders prepare to seize the opportunity to exploit success by the entire force. However, counterattacks may be limited to movement to better terrain in order to bring fires on the enemy. Given the same forces on both sides, counterattacks can achieve greater effects than other attacks because the defender can create more favorable conditions through rehearsal and control of the timing.

4-33. FEINT

The feint is in many ways identical to other forms of the attack. Its purpose is to cause the enemy to react in a particular way, such as by repositioning forces, committing its reserve, or shifting fires. The key difference between the feint and other attack forms is that it is much more limited in scope and has an extremely specific objective. The scale of the operation, however, usually is apparent only to the controlling headquarters. For the element actually conducting the feint, such as an SBCT infantry company or battalion, execution is just as rapid and violent as in a full-scale attack.

a. **Company Role.** The company normally participates in a feint as part of a larger element. Among the planning considerations for the company commander are the following:

- The higher commander’s intent regarding force preservation.
- Disengagement criteria and plans.
- Assignment of limited depth and attainable objectives.
- Clear follow-on orders that ensure the feinting force is prepared to exploit the success of the main attack if necessary.

b. **Making Feints Believable.** Feints are successful only if the enemy believes that a full-scale attack operation is underway. To be believable, they must be conducted with the same violence and the same level of precision as any attack. The controlling headquarters must issue a clear task and purpose to the unit conducting the feint. This should include identification of the specific enemy action the feint is supposed to trigger (or deny), such as forcing the commitment of an enemy reserve force or preventing an

enemy element from repositioning against the main effort attack. Feints are most effective under the following conditions:

- When they reinforce the enemy's expectations.
- When the attack appears to present a definite threat to the enemy.
- When the enemy has a large reserve that he has consistently committed early in the battle.
- When the attacker has several feasible COAs, any of which the enemy could mistake for the main effort.

4-34. DEMONSTRATION

The demonstration is an attack whose purpose is to deceive the enemy about the location of the main attack. This purpose is similar to that of a feint, but the friendly force does not make contact with the enemy. For example, the SBCT infantry company's role might entail establishing an attack-by-fire position beyond the enemy's direct fire engagement range; the purpose would be to cause the enemy to commit a specific element simply by virtue of the positioning of the demonstration force. In preparing to participate in a demonstration as part of a larger force, the company commander should keep in mind the following planning considerations.

a. **Limit of Advance.** The limit of advance must be carefully planned so the enemy can "see" the demonstration force but cannot effectively engage it with direct fires. The force must also take any other security measures necessary to prevent engagement by the enemy.

b. **Contingency Plans.** The demonstration force must make contingency plans so it can respond effectively to enemy direct or indirect fires while avoiding decisive engagement.

c. **Follow-on Orders.** Clear, specific follow-on orders must ensure that the demonstration force is prepared to exploit the success of the main attack, if necessary.

Section VIII. ATTACK TECHNIQUES

The assault on an enemy strongpoint and a limited visibility attack are the two most demanding attacks an SBCT company conducts. The fundamentals and techniques discussed in this section will assist the SBCT infantry commander in planning, preparing, and conducting all attacks.

4-35. ASSAULT OF A STRONGPOINT

The most difficult objective for a light infantry force is to seize or clear an enemy strongpoint complete with obstacles and fortifications. The commander employs techniques that avoid attacking the enemy's main strength. Instead, he tries to identify and attack a weakness in the defense. The SBCT infantry commander deceives the enemy as to the point of the main attack; he uses surprise to take advantage of his initiative in determining the time and place for the attack. He attempts to strike the enemy on exposed flanks or the rear. A deliberate attack of a strongpoint is usually conducted in the following steps:

- Reconnoiter the objective and develop the concept.
- Move to the objective.
- Isolate the objective and the selected breach site.

- Attack to seize a foothold.
- Exploit the penetration and clear the objective.

a. **Reconnoiter and Develop the Concept.** The commander conducts reconnaissance of the objective himself or has someone else do it. The reconnaissance should identify the positions on the objective (crew-served weapons, C2 locations, and vehicles), the level of preparation, the gaps in the defense, and other potential weaknesses. The SBCT infantry commander may conduct reconnaissance of the objective to determine any changes from previous information.

(1) The reconnaissance may be done many different ways. An effective technique is to task-organize a reconnaissance patrol with leaders from the assault, support, and breach elements. There should be sufficient personnel to establish surveillance on the objective and to secure the ORP. The reconnaissance patrol either returns to the company's location or meets the company at a designated linkup point and guides it into the ORP. At times, the scout platoon or other battalion assets may be tasked to conduct reconnaissance in support of the company's mission.

(2) After the commander develops his concept, he often task-organizes his unit into a breach element, a support element, an assault element, and possibly a reserve. The reserve is normally under his control and is positioned where it can best exploit the success of the attack or increase combat power as necessary. The reserve should not be so close that it loses flexibility during the assault. The reserve leader must know where he will locate throughout the attack.

(a) The breach force is usually formed around an infantry unit. Engineers, if available, are also part of the breaching element. Any mechanical or explosive breaching assets are attached to this element. The breach force makes the initial breach and passes the assault element through. It may have to organize its own assault element (to secure the breach), support element (to provide close-in suppression), and breach element (to actually breach the obstacles).

(b) The support element is organized to provide supporting (indirect or direct) fires initially to the breach element, then to the assault element. The support element may consist of any combination of infantry squads, the 120-mm/60-mm mortar section, the machine-gun teams, M203 gunners, the MGS platoon, or the ICVs. Their primary responsibilities are to suppress enemy forces that may engage the breach element and to isolate the objective from enemy reinforcement or escape.

(3) The assault element is usually one or two infantry platoons, depending on the enemy situation (number of personnel, level of preparation, and complexity of fortifications) and the size and composition of the breach and support elements. Often, a small assault element supported by a large volume of accurate suppressive fires is effective in clearing the objective. The assault element may also need to breach enemy protective obstacles on the objective.

(4) The commander determines the best task organization for the entire mission. It should be simple and maintain unit integrity whenever possible. At times, the company moves to the ORP task-organized as usual (no cross attachments), changes task organization in the ORP for the conduct of the assault, and then modifies this task organization to consolidate in defensive positions on the objective.

b. **Move to the Objective.** The company approaches the objective (Figure 4-12) in a manner that supports its deployment prior to the assault. The SBCT infantry commander

must determine the transition between mounted and foot movement based on the enemy situation. This may be a movement intended to avoid detection that allows the company to occupy the ORP and conduct the leader's reconnaissance of the objective. The company may cross the LD (or depart the perimeter defense) supported by heavy suppressive direct and indirect fires. These fires continue until the company reaches its assault position or final coordination line (FCL); they then shift to allow the assault on the objective. In either case, the following fundamentals should be part of this step of the attack:

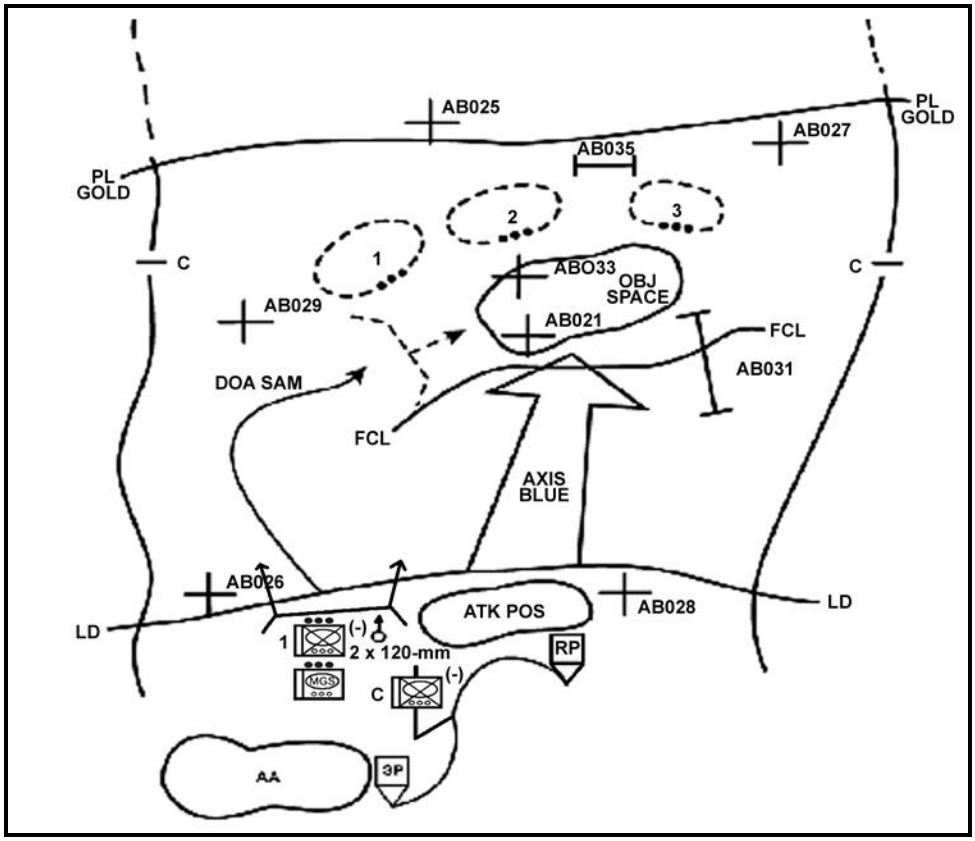


Figure 4-12. Movement to the objective.

(1) The movement from the assembly area to the LD is timed so that movement to and across the LD is continuous. The lead element of the company starts crossing the LD at the attack time specified in the battalion OPORD. Before the company's movement, a patrol may be sent to reconnoiter and mark the route and check the time it takes to move to the LD.

(2) The support element may precede the assault and the breach elements to the LD in order to be in an overwatch position ready to fire when they cross the LD. Company mortars move forward to a firing position near the LD to allow maximum coverage of the objective area.

(3) The commander normally avoids stopping in the attack position. However, if the company is ahead of schedule or told to hold in the attack position, it occupies the attack position, posts security, and waits until it is time to move (or until told to move).

(4) During movement from the LD to the assault position, the company makes the best use of cover, concealment, smoke, and supporting fire.

(5) If the company is hit by indirect fire en route, it moves quickly out of the impact area. If it meets enemy resistance short of the objective, it returns fire at once. The leader of the platoon in contact calls for and adjusts indirect fire on the enemy. Depending on the company plan and the location and type of resistance, the platoon may bypass an enemy position that cannot affect the mission. The locations of all bypassed enemy are reported to the company commander through FBCB2; he, in turn, forwards them to the battalion.

(6) If the company cannot bypass an enemy position, the company commander and the platoon leader in contact must take prompt and aggressive action. The platoon leader attempts to conduct the platoon attack drill and destroy the enemy position. The commander quickly conducts an estimate of the situation and issues FRAGOs as needed to carry out his plan. He should not commit platoons piecemeal. He coordinates actions and fires so the company can attack the enemy with its full combat power. The commander should maneuver to assault the flank or rear of the enemy position. When it has destroyed or suppressed the enemy, the company continues toward its objective.

(7) The company either bypasses or breaches obstacles along the route. The commander must decide the best way to overcome the obstacle without losing momentum. In selecting the scheme of maneuver, the commander normally tries to avoid COAs that require breaching of enemy obstacles. Because all forces construct defensive obstacles around their positions, however, the attacking unit must be prepared to conduct a breach. In an SBCT battalion deliberate attack, the company may be the breach force; it may conduct breaches with its organic countermine equipment or with attached engineer assets. The company commander informs the battalion commander of obstacles that may affect units following the company. The company commander positions engineers forward to provide a rapid assessment of the obstacle.

(8) The support force (if any) should be in position before the company's assault force reaches the assault position. The support element initiates its fire on the objective on order or at a specified time. Supporting indirect fires are synchronized to impact at the same time.

c. **Isolate the Objective and the Selected Breach Site.** Normally, the SBCT battalion isolates the objective area to allow the company (or companies) to concentrate its combat potential on the enemy strongpoint (Figure 4-13).

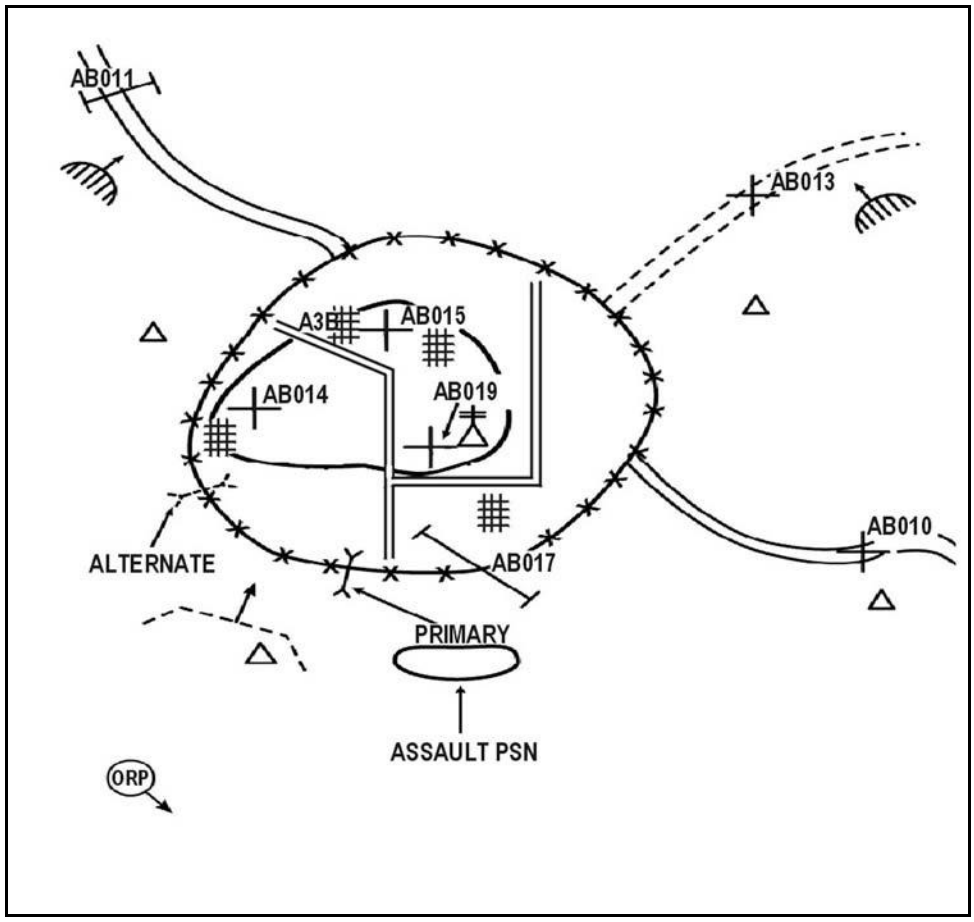


Figure 4-13. Isolate the objective.

(1) The company may begin the isolation during the leader's reconnaissance by positioning security elements to prevent enemy movement into or out of the objective area. The commander must ensure that these units understand what actions to take. Initially, they may only observe and report until the company deploys for the assault. At a designated time or signal, they begin active measures to isolate the objective.

(2) Once the company has isolated the objective area, the commander focuses on isolation at the breach point or point of attack. This isolation is to prevent enemy reinforcement at the breach site and also to suppress enemy weapons and positions that have observation of the breach site. The support force is assigned the main responsibility for this isolation.

(3) The commander masses all available combat power at the initial penetration or breach point. He uses indirect fires to suppress or obscure adjacent enemy positions and isolate them from the breach site.

d. **Attack to Seize a Foothold.** The breach of the enemy position is normally the SBCT infantry company's initial main effort. The breach force penetrates or bypasses the enemy's protective obstacles, gains a foothold in the trench line, and creates a gap large enough for the assault element to pass through (Figure 4-14, page 4-42).

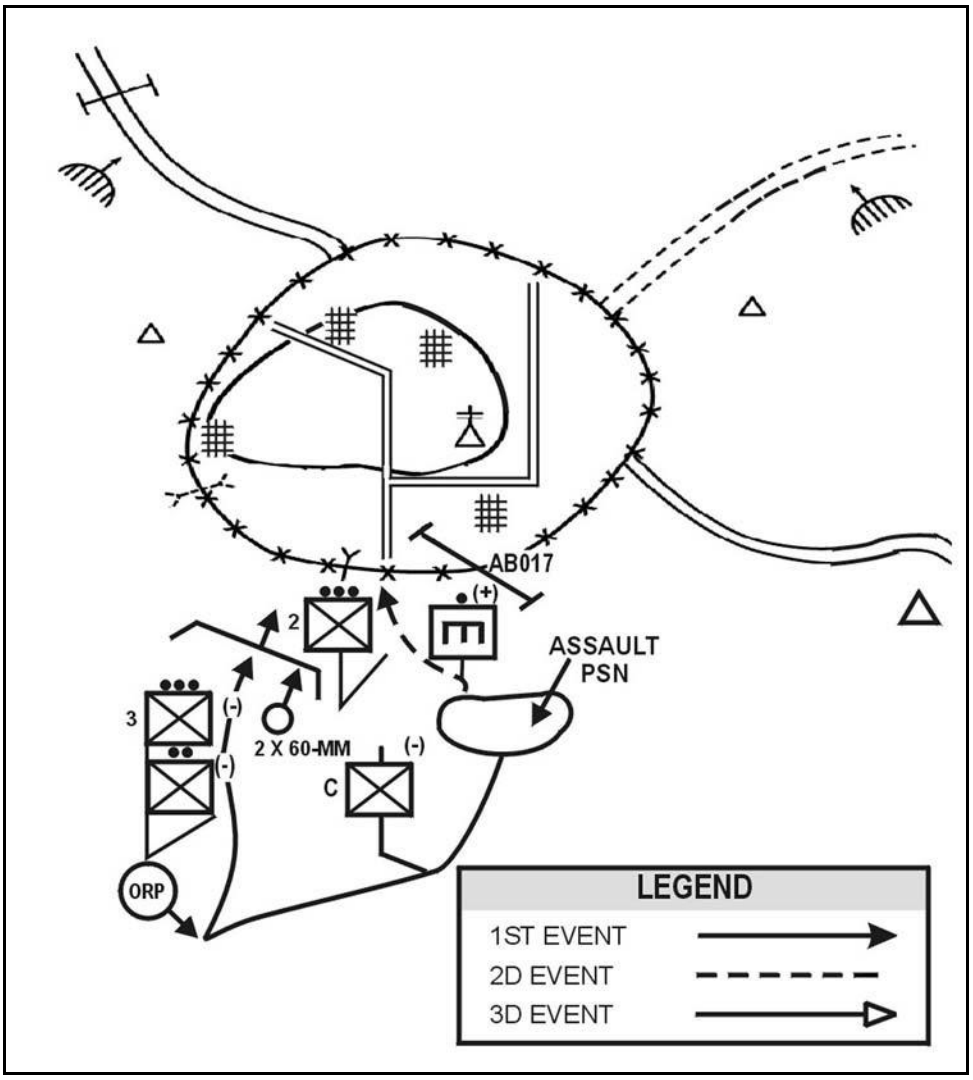


Figure 4-14. Breach and secure a foothold.

(1) ***Preparations.*** A unit conducting a breach must be prepared to execute the following steps:

- Suppress the enemy covering the obstacle or breach site.
- Use smoke to obscure the enemy's observation of the breach element.
- Secure the far side of the breach by seizing the terrain or destroying the enemy that can engage the breach site.
- Reduce the obstacle, widen and mark the lane, or both.
- Assist passage of the assault elements.

(2) ***Planning.*** In planning the breach operation, consider the following:

(a) The breach force moves forward by covered and concealed routes. If possible, the breach should be covert to reduce the time the breach and assault forces are exposed to enemy fire. If this is not possible or if the breaching attempt is compromised, the breach force moves under the suppressive fires of the support force.

(b) The penetration of the enemy position is made on a narrow front. The concept is to make a narrow penetration into the enemy defenses and then expand it enough to allow

rapid passage of the assault force. Normally, the company concentrates all combat power at one breach point. It may use two breach sites, however, if they are mutually supporting and do not result in a lack of concentration or a piecemeal assault. When using only one breach site, the company should plan an alternate site as a contingency in case the primary breach is unsuccessful.

(c) The support force provides effective suppression for the breach and assault force(s) to cross the enemy's killing ground. Each weapon in the support element should have a specific enemy position or sector of responsibility assigned. Initially, the support force establishes fire superiority with a maximum volume of fire; they then maintain fire superiority throughout the attack. When indirect fires shift, the support force increases the rate of direct fire to maintain the suppression.

(d) The support force normally occupies one position to simplify control. At times, however, the support force must occupy several positions to provide effective suppression of the enemy. This may be required to prevent the masking of fires by the breach or assault force or because of the characteristics of the supporting weapons (120-mm/60-mm mortars). Also, the support force often needs to reposition once the assault force begins clearing the objective. They may follow the assault force through the breach or reposition outside the enemy position.

e. **Exploit the Penetration and Seize the Decisive Point.** After the successful breach, the assault force conducts the main attack (Figure 4-15, page 4-44). The assault force passes rapidly through the breach, supported by the fires of the support force and the breach force. In planning the assault, consider the following points:

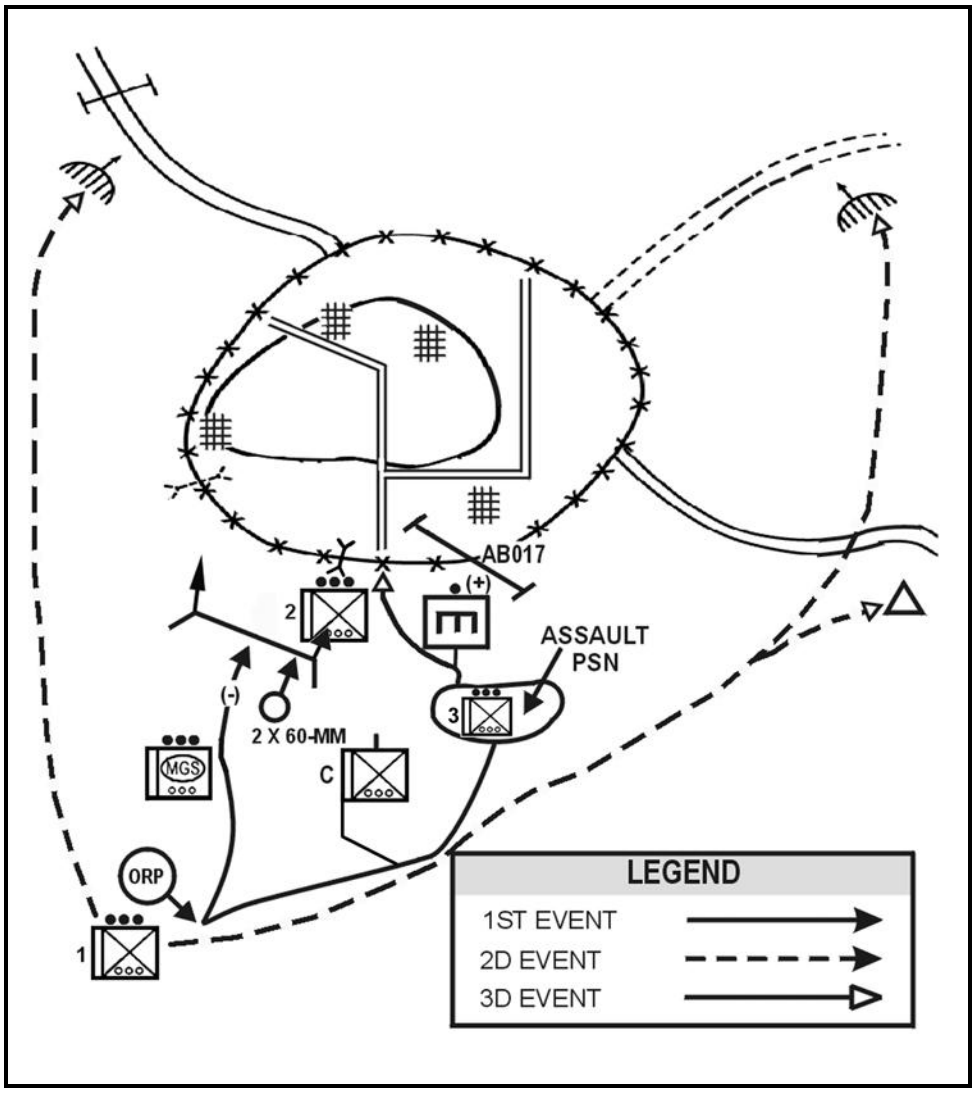


Figure 4-15. Exploit the penetration.

(1) The assault force must reduce the enemy position as quickly as possible. If the assault force can capture or destroy the enemy's command and control facilities or other key positions and weapons, the enemy may surrender or abandon the position. If there is key terrain, this may be the decisive point for the assault force. Normally, the assault force moves within the enemy's trenches to avoid exposure to enemy fire.

(2) The assault force must also organize into support, assault, and breach elements. As it encounters subsequent positions or bunkers, it may have to repeat the breaching operations. As in the initial breach, the breach element establishes a support-by-fire position and conducts the same sequence of breaching and assaulting to reduce the position.

(3) The designation of a reserve allows the SBCT infantry commander to retain flexibility during the attack. The commander should be prepared to commit his reserve to exploit success and to continue the attack. The reserve also may repulse counterattacks during consolidation and reorganization.

(4) Once an assault starts, the company maneuvers aggressively to allow the enemy less time to react. The commander monitors the situation and adjusts the plan to exploit any weakness found during the attack. If a situation develops that is beyond the capability of his company, he notifies the battalion commander. He may have to hold his position until other companies can maneuver to support him.

(5) In moving from their assault positions, platoons advance in the formation most suitable to the terrain and situation. When the assault element must move through a narrow lane in the obstacles, it maintains dispersion and assaults through the lane by fire commands; signals should be coordinated to support this. The commander moves where he can best control his platoons and supporting fire. Indirect fire and the direct fires of the support force shift when they endanger the advancing soldiers.

(6) The assaulting soldiers clear enemy positions, secure and search prisoners, and move quickly across the objective. When they reach the far side, they take up hasty fighting positions and continue to fire at the withdrawing enemy. When the objective is secured and cleared (seized), the supporting elements and company trains are called forward.

(7) Once it seizes the objective, the company consolidates. Reorganization, if required, is normally conducted concurrently with consolidation and consists of actions taken to prepare for follow-on operations. As with consolidation, the SBCT infantry company commander must plan and prepare for reorganization as he conducts his troop-leading procedures. He ensures that the company is prepared to take the following actions:

- Provide essential medical treatment and evacuate casualties as necessary.
- Cross-level personnel and adjust task organization as required.
- Conduct resupply operations, including rearming and refueling.
- Redistribute ammunition.
- Conduct required maintenance.

4-36. ATTACK DURING LIMITED VISIBILITY

Successful attacks during limited visibility depend on leadership, reconnaissance, training, planning, and surprise. Although these fundamentals are also key to daylight attacks, attacks during limited visibility require certain considerations and the proper application of the techniques discussed in this chapter to ensure control in the attack. Darkness, fog, heavy rain, and falling snow limit visibility. Smoke and dust from high explosive (HE) fires also limit visibility, but their effects are more temporary. SBCT infantry companies attack during limited visibility--

- To achieve surprise.
- To avoid heavy losses.
- To cause panic in a weak or disorganized enemy.
- To exploit success and maintain momentum.
- To keep pressure on the enemy.

a. **Fundamentals.** The SBCT infantry company, when equipped with NVDs, conducts limited visibility attacks very much like daylight attacks (Figure 4-16, page 4-46). The fundamentals for a daylight attack, discussed earlier in this chapter, still apply for night attacks. Conducting attacks in this manner requires--

- A company that is well-trained in limited visibility attacks.
- Enough natural light to employ the unit's NVDs.
- A simple, effective concept that takes advantage of the enemy's surprise and confusion.
- A successful reconnaissance of the objective area.
- Additional control measures and techniques, as needed.

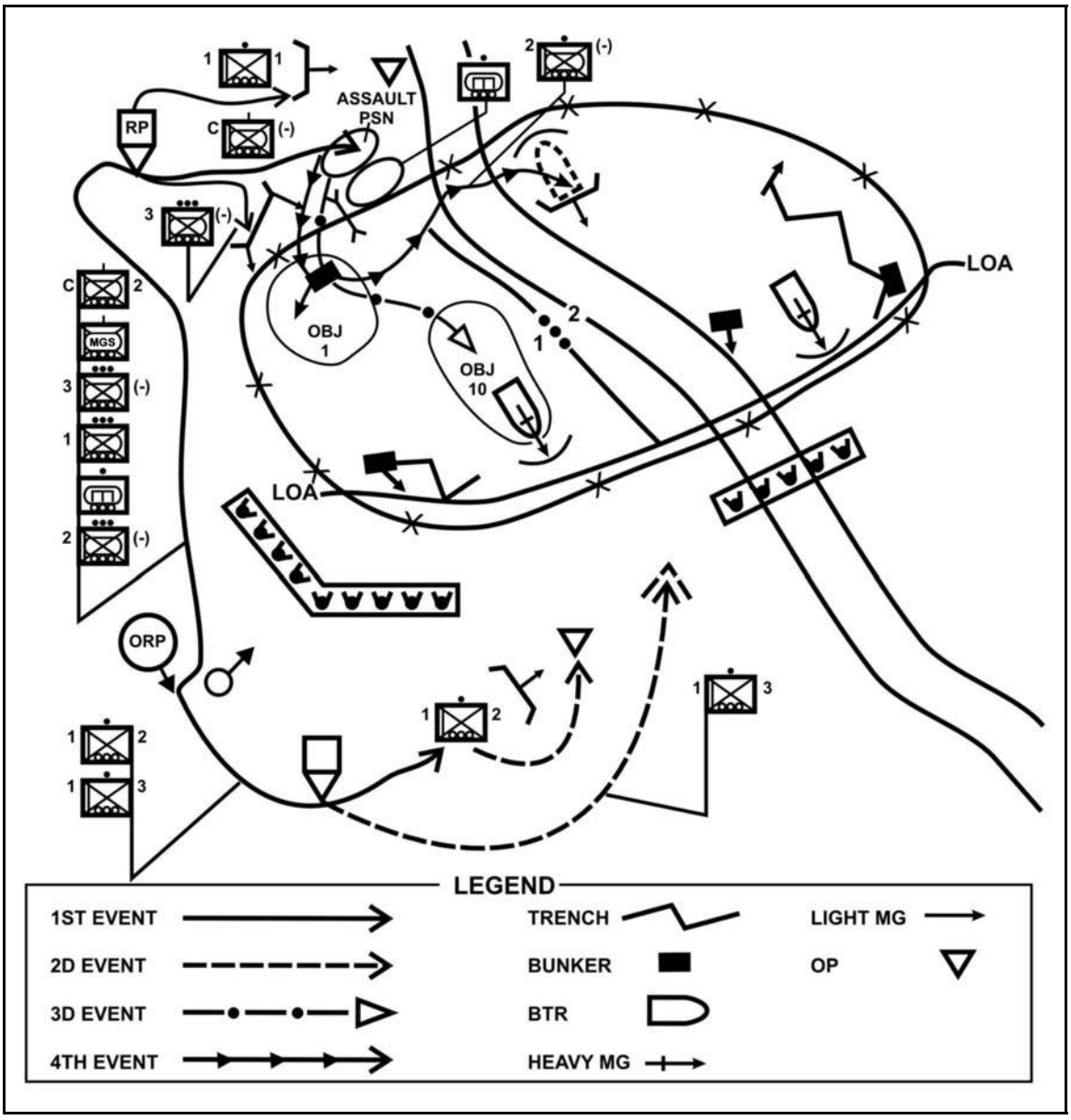


Figure 4-16. Limited visibility attack with NVDs.

b. **Challenges.** When planning attacks at night, the SBCT infantry commander must consider the increased difficulty of--

- Controlling units, soldiers, and fires.
- Identifying and engaging targets.

- Navigating and moving.
- Distinguishing friendly and enemy soldiers.
- Locating, treating, and evacuating casualties.
- Locating and bypassing or breaching enemy obstacles.

c. **Considerations.** In planning limited visibility attacks, the SBCT infantry commander also should consider the following:

(1) Feints and other deceptions may be more effective. (This is true for the enemy also.)

(2) If a small element can infiltrate the enemy position, it can be extremely effective in supporting the main attack. A small element can also covertly breach obstacles or neutralize key positions and weapons to allow the main attack to seize a foothold quickly.

(3) It may be possible to infiltrate the main attack inside the enemy's positions and then fight from the inside to the outside. In this case, the unit inside the position may be able to occupy defensive positions and force the enemy to attack him.

d. **Illumination and Indirect Fire.** There are two basic decisions to be made for conducting limited visibility attacks:

- Illumination on the objective.
- Indirect fire support for the attack.

(1) The infantry company normally conducts nonilluminated attacks to exploit its technological and training advantage. For all night attacks, however, illumination should be readily available in case the enemy detects the attack and uses illumination, or if he possesses NVDs. Illumination also may be effective to support reorganization and consolidation after the objective is secure, particularly for casualty evacuation.

(2) The infantry company conducts illuminated night attacks like daylight attacks. Illumination is available from artillery, mortars, M203s, and hand-fired and aircraft flares. Permission to fire illumination is often retained by battalion because the light may affect adjacent unit operations.

(3) Nonilluminated, nonsupported attacks offer the best chance of gaining surprise. These attacks are conducted like daylight attacks.

(4) Illuminated, supported attacks are almost identical to daylight attacks. These may be most effective when speed is essential, when there is limited time for reconnaissance, or when the enemy is weak or disorganized. When conducting these types of attacks, the attacking unit still attempts to use stealth and the concealment of limited visibility to gain surprise. They then initiate illumination and fires to support the assault.

e. **Reconnaissance.** Reconnaissance is critical in every attack, but especially for attacks at night. It should be conducted during daylight and down to the lowest level possible. Each SBCT unit should reconnoiter the routes on which they will move, the positions they will occupy, and the objective they are assigned. The company must balance the need for detailed information about the enemy against the risk of detection and loss of surprise.

(1) The reconnaissance plan should establish surveillance on the objective in case the enemy repositions units and weapons or prepares additional obstacles. Surveillance and security elements should secure critical locations, such as assault and support positions, the LD or PLD, and key routes and ORPs to protect the company from enemy ambushes and spoiling attacks. These security forces may become part of the isolation element during the attack.

(2) When reconnaissance is not successful due to lack of time, failure to identify critical aspects of the enemy's position, detection by the enemy, or any other reason, the commander should request a delay in the attack time to allow for further reconnaissance. If this is not possible, he should consider an illuminated or supported attack. A night attack with marginal information on the enemy's defense is very risky and difficult to conduct successfully.

f. **Simplicity.** A simple concept, particularly for the actions on the objective, also supports control during the assault. If possible, SBCT platoon and squad objectives should be small and easily identified.

(1) Avoid developing a concept that requires the company to fight for each enemy fighting position. As in a daylight attack, identify a decisive point and focus combat power at this location. Once the decisive action is accomplished, the plan must also address any remaining enemy. If required by the higher commander's concept or for an effective consolidation, the company may have to clear all enemy forces from the objective area.

(2) A smaller assault force maneuvering on the objective is easier to control and less likely to suffer casualties from enemy or friendly fires. The assault force must have clear signals to ensure control of all supporting fires, both direct and indirect.

(3) The concept for a nonilluminated attack should be flexible to allow for adjustment to a daylight attack if illumination becomes appropriate due to detection by the enemy or the use of illumination by an adjacent unit. This is especially critical for a unit that plans a modified linear assault attack but may be forced to conduct an illuminated attack. A contingency plan that reorients for illumination should be prepared and issued, and every soldier should know under what conditions to execute this plan. In some cases (when already deployed through the PLD and advancing on the enemy, for example), the company may have no choice but to continue the attack as planned or attempt to disengage.

g. **Fire Control Techniques.** Fire control techniques for limited visibility include--

(1) ***Tracer Fire.*** Leaders in the assault force fire all tracers; their men fire where the leader's tracers impact. The support force positions an automatic weapon on a tripod on the flank nearest the assault element. This weapon fires a burst of tracers every 15 seconds to indicate the near limit of the supporting fires. All other weapons in the support force keep their fires on the side of this tracer away from the assault force. The assault force signals to shift fires to the next position or to a set distance. If required, these rounds can be adjusted well over the head of the assault force to preclude casualties.

(2) ***Luminous Tape or Chemical Lights.*** Mark assault personnel to prevent fratricide. Do this in a way that avoids enemy detection, such as luminous tape on the back of the helmet or small infrared chemical lights (if the enemy has no NVDs). The support force should know where the lead assault force is. If individual soldier markings do not suffice, use large chemical lights (infrared [IR] or visible). Place these on the ground or throw them in front of the assault force. When clearing a trench line, put the lights on a stick and move them with the lead element.

(3) ***Weapons Control Restrictions.*** Assign weapons control restrictions to reduce the risk to the assault force.

(a) The platoon on the right in the assault might be given weapons free to the right flank, because there are no friendly soldiers there, but weapons tight or hold on the left because another friendly unit is located there.

(b) The assault force may be restricted to using only shotguns and pistols.

(c) The assault force may be restricted to no automatic weapons fire on the objective. This ensures that all automatic weapons in use are enemy.

(4) ***Other Techniques.*** Use the following techniques to increase control during the assault:

- Not allowing flares, grenades, or smoke on the objective.
- Allowing only certain personnel with NVDs to engage targets on the objective.
- Using a magnetic azimuth for maintaining direction.
- Using mortar or artillery rounds to orient attacking units.
- Using guides.
- Reducing intervals between soldiers and units.

h. **Supporting Fires.** Mortar, artillery, and antiarmor fires are planned for a night attack much like in a daylight attack. However, they do not fire unless the SBCT infantry company is detected or until the company is ready to assault. Some weapons may fire before the attack and maintain a pattern to deceive the enemy or to help cover noise made by the company's movement. This is avoided if it will disclose the attack.

(1) Indirect fire is difficult to adjust when visibility is poor. If doubt exists as to exact friendly locations, indirect fire is directed first at enemy positions beyond the objective and then walked onto the objective. The illumination rounds may be fired to impact on the ground, providing both light and markings on the objective. They may also be placed behind the objective and in the air, causing the enemy to be silhouetted. Once illumination is begun, it should continue until the objective is secure. Sufficient ammunition must be available.

(2) Smoke is planned to further reduce the enemy's visibility, particularly if he has night vision devices. The smoke is laid close to or on enemy positions to avoid restricting friendly movement or hindering the breaching of obstacles. Employing smoke on the objective during the assault may make it hard for assaulting soldiers to find enemy fighting positions, but if sufficient thermal sights are available, using smoke on the objective may provide a decisive advantage for a well-trained unit.

(3) Illumination is always planned for attacks to be conducted in limited visibility. That gives the company commander the option of calling for it. The battalion commander normally controls illumination but may authorize the company commander to call for it when needed. If the company commander decides to use illumination, he should not call for it until the assault is initiated or the attack is detected. It should be placed on several locations over a wide area to confuse the enemy as to the exact location of the attack. It also should be placed beyond the objective to help assaulting soldiers see and fire at withdrawing or counterattacking enemy soldiers.

(4) Illumination also may be required if the enemy uses illumination to disrupt the effectiveness of the company's NVDs. Once used, illumination must be continuous because attacking soldiers will temporarily lose their normal night vision. Any break in illumination also may reduce the effectiveness of suppressive fire when the attackers

need it most. Care must be taken to ensure that the squad and platoon leaders do not use hand flares before the commander has decided to illuminate the objective.

(5) The thermal sights of weapons (such as the Javelin) may be employed strictly for observation if there are no targets for these weapons to engage. Positioned outside the objective area, these sights can provide critical current information. They also can assist the support force in controlling their fires or provide the assault force with reports of enemy movements on the objective.

(6) When limited NVDs are available, they must be prioritized and employed at the most critical locations. Priorities to consider include key soldiers in the breach force, key leaders in the assault force, other members of the assault force, and key leaders and weapons in the support force.

i. **Consolidation and Reorganization.** When it has seized the objective, the SBCT infantry company consolidates and reorganizes. Consolidation and reorganization are the same as for a daylight attack with the following exceptions:

(1) Guides lead trains and support elements forward to their positions.

(2) The consolidation plan should be as simple as possible. Avoid changes in task organization.

(3) Locating and evacuating casualties and enemy prisoners of war (EPWs) takes longer. They may have to be moved to the rear of the objective and kept there until visibility improves.

(4) Platoon positions are closer together to ease control and improve mutual support. Position distances are adjusted as visibility improves.

j. **Modified Linear Assault.** The modified linear assault is a technique for conducting a nonilluminated attack without NVDs to seize an occupied objective. This technique is effective in controlling the fires of the assault force by maintaining a linear formation. Each soldier assaults using individual movement techniques while remaining generally "on line" with the soldier on his right and left. Each soldier is able to engage or suppress targets to his front with fewer restrictions because there is less chance of fratricide.

(1) ***Modifications.*** In the true linear assault, the company deploys through its respective squad release points RPs), and the entire company conducts a linear assault across the objective (Figure 4-17). To reduce the vulnerability of the assault force, this technique is normally modified, which may be done in a number of ways depending on the situation.

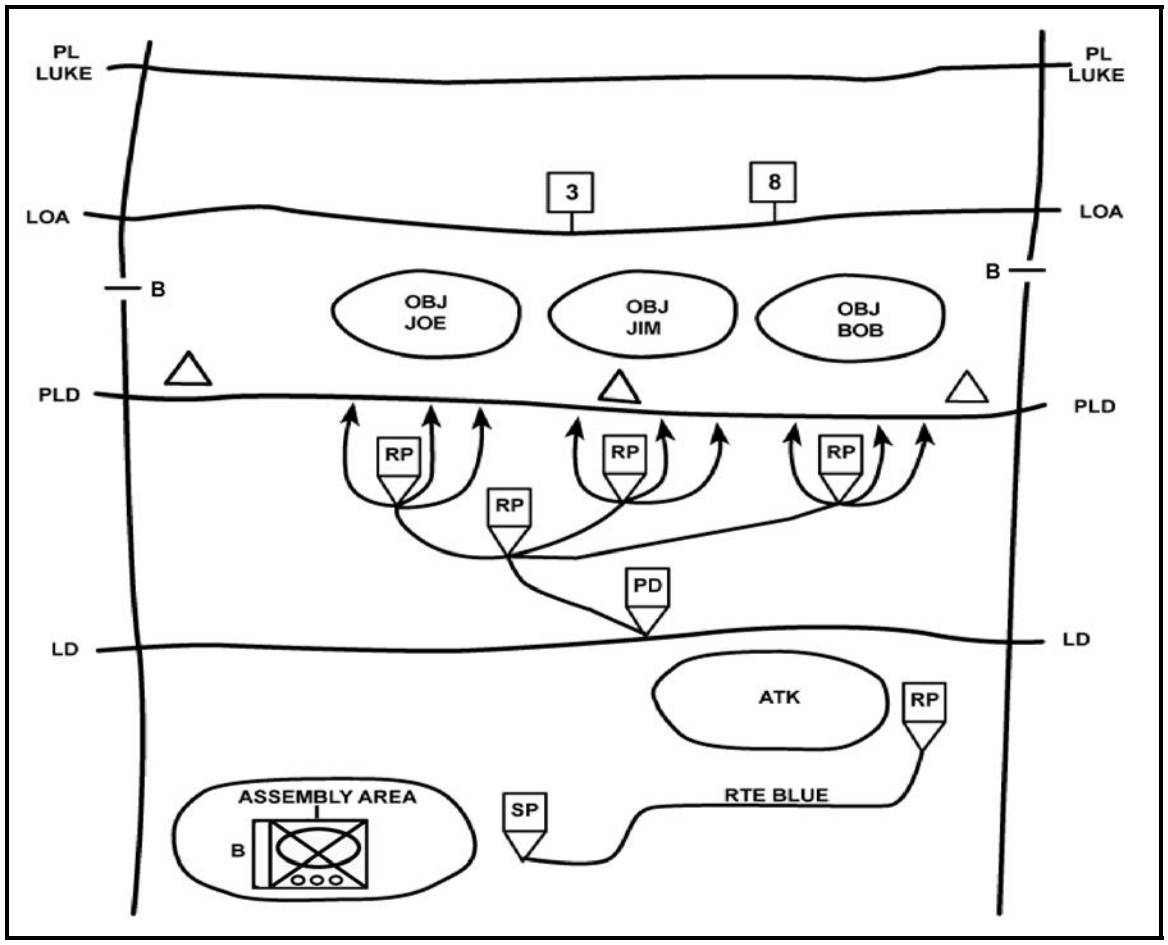


Figure 4-17. Linear assault.

(a) The most effective modification is to establish part of the company in a support-by-fire position. The remainder of the company deploys at the PLD and conducts the assault (Figure 4-18, page 4-52). Machine guns, mortars, and Javelins are normally most effective in this role. M203s also may be effective if visibility is sufficient for their employment. It is essential that the flank of the assault force nearest the support force be visible to the support force. The fire team on this flank may mark themselves with chemical lights or glint tape to ensure they are visible.

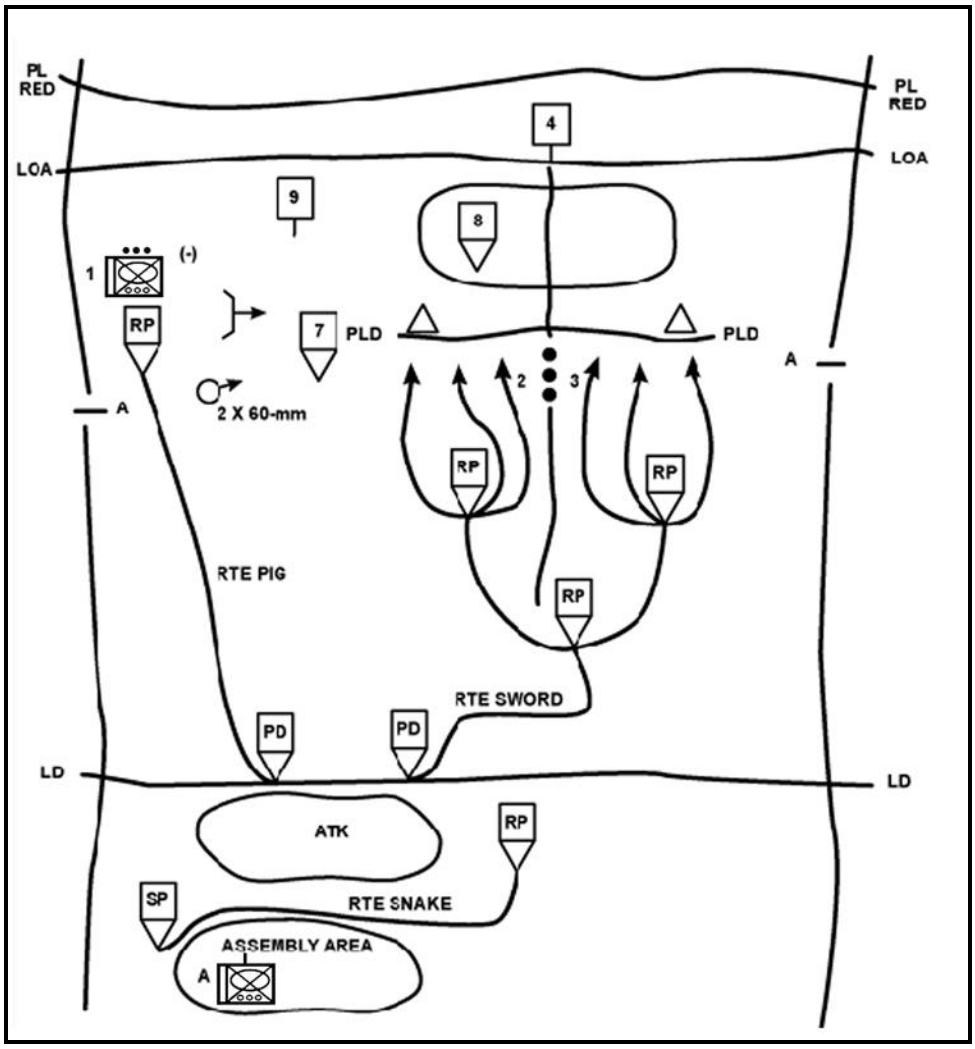


Figure 4-18. Linear assault with support element.

(b) Other variations of this technique may include attacking on a much narrower front with a smaller assault force and having a large follow-and-support force. For example, instead of two platoons deploying at the PLD, a platoon(-) could deploy against an identified enemy weak point (Figure 4-19). This platoon could be tasked to bypass enemy positions to seize or destroy a critical location or facility quickly, with the follow-and-support force reducing bypassed positions. Another variation is to assign the assault force a shallow objective to support the forward passage of the trailing unit, or to deploy through the platoon release points and then to attack in squad files. The latter is most effective when the situation supports an infiltration through the enemy defenses to seize decisive terrain or positions to the rear.

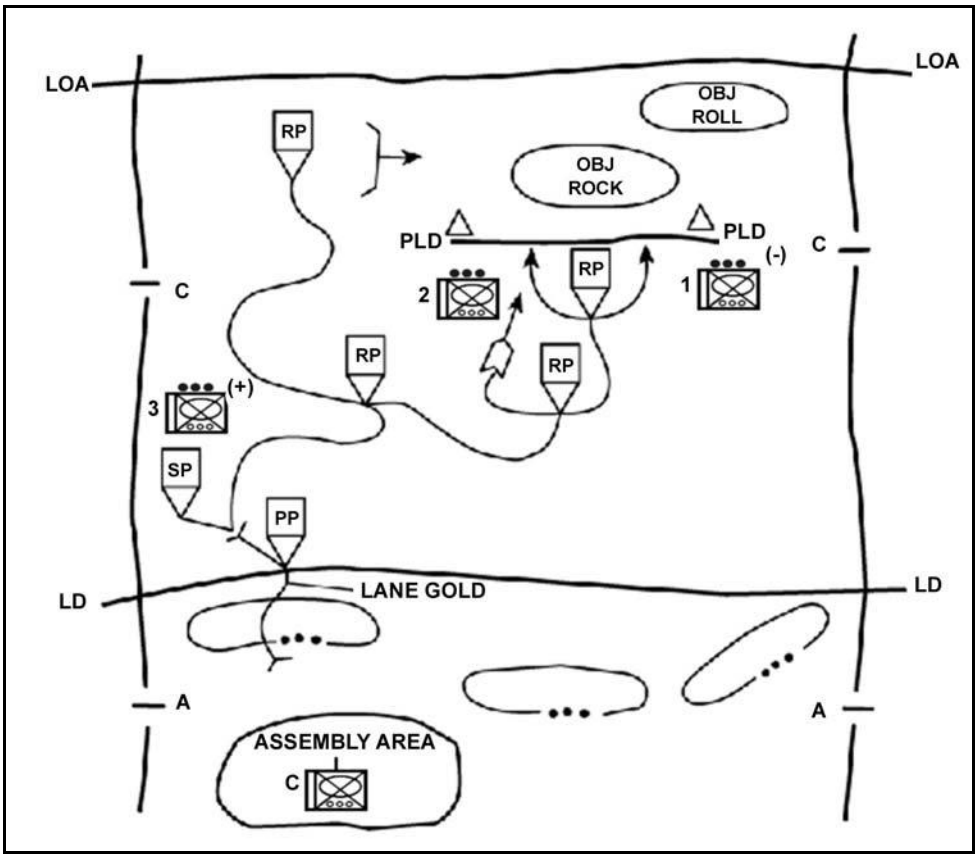


Figure 4-19. Linear assault with follow and support.

(2) ***Advantages.*** The modified linear assault simplifies the control of supporting fires from outside the objective. By establishing support positions perpendicular to the direction of assault, the supporting fires can be employed next to the assault force and then shifted in front of them as they advance.

(3) ***Disadvantages.*** The linear formation is the biggest weakness with the modified linear assault. If the enemy is in well-prepared defensive positions, the linear formation ensures at least part of the assault force attacks through the enemy's kill zones. Also, assaulting using this technique makes it very difficult for the leader to concentrate combat power against an identified enemy weakness. Finally, if the enemy has NVDs or the assault force runs into unidentified obstacles after deploying at the PLD, fire superiority may not be achieved and the assault will rapidly come to a halt. This may result in the majority of the company being decisively engaged in the enemy killing ground.

(4) ***Conduct of the Assault.*** Although there are significant difficulties with the modified linear attack, it remains a viable technique for attack during limited visibility by units without NVDs. It is most effective against a weak or disorganized enemy. If the enemy has NVDs or a well-prepared defense with protective obstacles, this technique should not be used. An illuminated, supported attack that is conducted as a daylight attack may be the most effective option in that situation.

(a) Before attacking in this manner, the SBCT infantry company should secure the PLD and provide personnel to guide the company from the LD to the PLD. Each platoon

provides personnel to secure their portion of the PLD and to guide the platoon from the platoon release point (RP). These soldiers are briefed on the routes from the LD to the platoon RP, actions on enemy contact, time of departure, and other information needed by the patrol units to conduct their mission. They move forward to the platoon RP; then they move forward to reconnoiter and mark the platoon routes, secure their respective parts of the PLD, and observe the objective. The platoon guides go back to the platoon RP to guide their platoons to the squad RP and to the PLD.

(b) Once the company crosses the LD, movement to the PLD is continuous. They move slowly to maintain stealth. Platoons are released at the platoon RP so they can deploy before reaching the PLD. Once their units are deployed, the platoon leaders and the support element leader notify the commander. When the company is fully deployed, the commander informs the battalion commander. On the battalion commander's order, the company moves silently forward from the PLD. The platoons guide on the base platoon.

(c) When the attack is discovered, or on the commander's order, the support element opens fire and the platoons assault. Leaders must recognize that this technique for conducting a limited visibility attack results in a linear assault. To be successful, the assault must achieve surprise and rapidly overwhelm the defender. If the initial assault fails, it is difficult to regain control. Scattered enemy fire must not be taken as a loss of surprise, and it should not be cause to start the assault.

(d) Soldiers assault aggressively using individual movement techniques to maneuver. The support force must quickly gain fire superiority with a heavy volume of fire. Tracers are used to improve accuracy, to control fires, and to allow the assault force to see where its supporting fires are impacting. The FIST calls for indirect fire around and beyond the objective to disrupt enemy reinforcement. As the assault closes on the objective, fires are shifted beyond the limit of advance or lifted entirely. Soldiers must not go beyond the limit of advance.

(e) If the enemy discovers the attack before the company reaches the PLD, the commander may--

- Call for planned, supporting fire to suppress the enemy.
- Call for illumination (if authorized by the battalion commander) to ease control and movement.
- Continue as if it were a daylight attack by modifying the attack plan to a daylight attack.

NOTE: A linear assault, even a modified variation, is very risky when conducted under illumination.

Section IX. COMMON OFFENSIVE ACTIVITIES

These activities are the warfighting actions the SBCT infantry rifle company may be called upon to perform in battle.

4-37. INFILTRATION

Infiltration is a form of maneuver used by infantry units in many situations. During an attack, strong enemy defensive positions may be encountered. To avoid the enemy's strength, the SBCT infantry commander may place his ICVs and other vehicles in a

secure location and move dismounted by stealth through gaps or around enemy positions to conduct operations in the enemy's rear area. The company may infiltrate to conduct raids, ambushes, or other attacks. The company may also use infiltrations for many other types of operations, such as stay-behind and reconnaissance.

a. **Fundamentals.** By infiltrating, the SBCT infantry company can maneuver to critical targets undetected, can achieve surprise, and can avoid the effects of enemy fires. Limited visibility, bad weather, and restrictive terrain reduce the chances of detection during an infiltration.

(1) A unit may infiltrate--

- To gather information.
- To attack the enemy at a weak point.
- To seize key terrain or destroy vital installations behind enemy positions.
- To harass and disrupt the enemy with ambushes in his rear area.
- To attack enemy reserves, fire support units, and command posts.

(2) The steps of an infiltration are as follows:

(a) *Patrol*. Find gaps or weak areas in the enemy defense and locate enemy positions. The SBCT company may conduct patrols, but RSTA assets are more likely to conduct them.

(b) *Prepare*. Conduct troop-leading procedures.

(c) *Infiltrate*. Avoid enemy contact; move by smallest units possible.

(d) *Consolidate*. Link up and prepare for actions at the objective.

(e) *Execute*. Complete the mission.

(3) Infiltrations do not always require that all units move through the enemy's positions without detection or contact. Depending on the mission, the company can still complete the mission even though some of the squads make contact en route to the linkup point. Although the enemy may have some idea of what is taking place, it is very difficult for him to estimate exactly what these small contacts mean. OPSEC may require that only key leaders have the entire plan during the infiltration step to prevent disclosure due to casualties or friendly prisoners.

b. **Considerations.** The SBCT infantry company commander must prepare an infiltration plan and give units enough time for preparation and movement. The company may infiltrate by itself or as part of the SBCT battalion. In either case, movement techniques and formations are based on the likelihood of enemy contact, the terrain, the level of visibility, and the need for speed and control.

(1) ***Size.*** The size of the infiltrating unit depends on the amount of time available, the amount of cover and concealment, and the enemy. Other considerations may include the need to communicate, the difficulty of navigation, the number of infiltration routes, and whether or not to take vehicles. Generally, smaller units can move more quickly and make better use of available concealment, but they may increase the number of linkups, requiring more time. Infiltrating by company or platoons ensures control and provides more combat power in the event of contact.

(2) ***Infiltration Lane.*** The company may be assigned an infiltration lane or zone. The company commander must decide whether to move the entire company together through the company's lane or to assign each platoon a separate infiltration lane within the company lane. He also has the option to stagger the start time for each platoon on the one company lane. The infiltration lane should be wide enough to allow the infiltrating units

to change their planned routes to avoid enemy contact. If the company uses a single company lane (Figure 4-20), the company commander picks a route through it and a company ORP. If the company commander uses multiple lanes (Figure 4-21), the company commander assigns each platoon a lane and a start time, picks linkup points for the platoons, and picks a company ORP. The platoon leaders pick the routes through their lanes. In making his decision whether to use single or multiple lanes, the company commander considers several things.

(a) Moving as a company on a single lane--
- May get the company to the ORP faster.
- Makes control easier.
- Makes navigation easier.
- Increases the chance of the entire company being detected but provides greater combat potential if detected.

(b) Moving on multiple lanes or by platoons on one lane--
- Requires linkups.
- Makes control harder.
- May make navigation more difficult.
- Decreases the chance of the entire company being detected but provides less combat potential if detected.

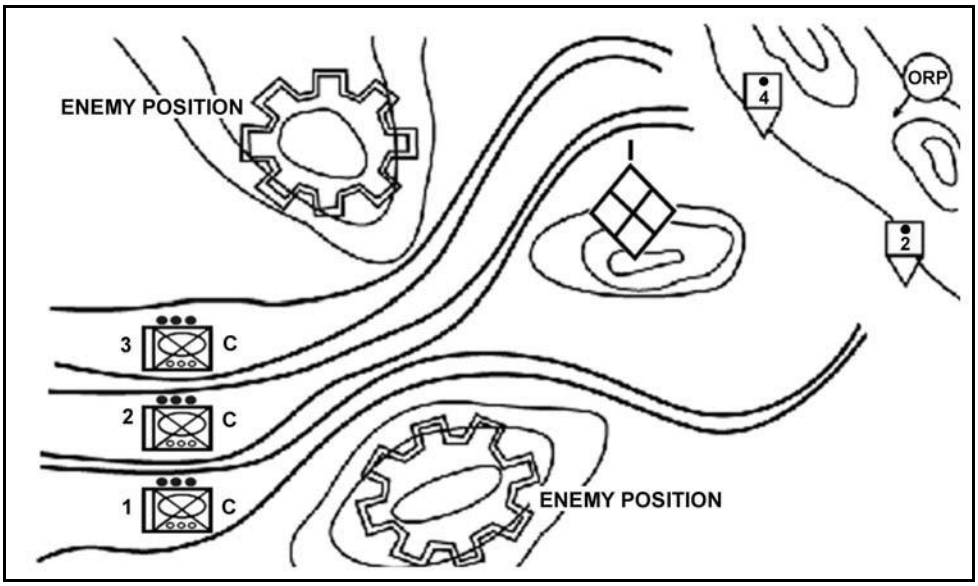


Figure 4-20. Company moving on single infiltration lane.

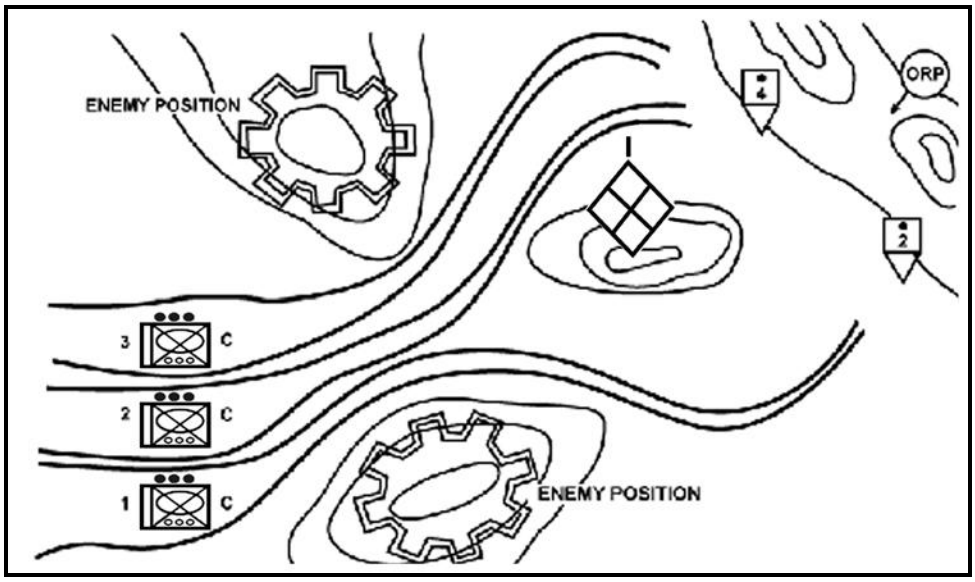


Figure 4-21. Company moving on multiple infiltration lanes.

(3) ***Routes.*** The routes selected must avoid enemy positions, use the best available cover and concealment, ease control and navigation, and avoid obstacles and danger areas.

(a) Routes should be reconnoitered without alerting the enemy. This may be possible by using RSTA assets within the SBCT; however, leaders should consider using a map reconnaissance or guides, or marking the routes.

(b) Rally points may be selected based on the reconnaissance assets available to the commander; others are selected as the company moves along the route. If the infiltrating company is dispersed by enemy action, it rallies at the last rally point passed that is not within enemy small-arms range. The assembled unit then waits until a set number of units or soldiers arrive at the rally point, or until a specified time, before continuing the mission. The senior man at the rally point should, in the absence of the commander, assume command and decide how best to continue the mission within the commander's intent.

(c) Locate the ORP as close to the objective as possible without being detected or losing security. The ORP should be large enough so that the company can deploy in it. It should be cleared before it is occupied.

(4) ***Linkup Point.*** When using multiple lanes, the platoons meet at a linkup point and then move as a company to the ORP. Do not plan linkups at the ORP. If a unit misses its linkup, it moves to a contingency linkup point located away from the ORP and links up with a small element from the ORP.

(5) ***Signals.*** Visual signals, such as arm-and-hand signals, infrared devices, and flashlights with colored lenses, reduce the chance of detection. Avoid sound signals and flares. Recognition signals are critical for actions at a linkup or rally point.

(a) Radio listening silence should be enforced, except when a unit must report its progress or when a unit detected by the enemy needs supporting fire.

(b) Radio messages to report crossing of phase lines or checkpoints (if required) should be brief--one code word. They may be transmitted without using call signs to identify units, providing each unit has separate code words.

(c) When required, units operating out of radio contact (because of terrain or distances) can monitor or send codes only at a certain time. At these times, they set up expedient antennas or move to terrain better suited for communication.

(6) ***Fire Support.*** Indirect fires are always planned but are used only when contact is made or when needed to support the mission. If contact is made with an enemy element, the infiltrating unit should use indirect fire to divert the enemy's attention, suppress enemy positions, and screen friendly movement as they disengage. Indirect fires may also be used to assist in navigation and to cause enemy soldiers on security to seek cover.

(7) ***Actions on Contact.*** When infiltrating on multiple lanes, detection of one infiltrating unit may alert the enemy and compromise the other infiltrating units. The company OPORD must state whether to continue the mission or return to friendly lines if detected by the enemy. Units following on the same lane should switch to an alternate lane. If a soldier in the unit speaks the enemy's language, he should be positioned at or near the front of the column in case an enemy OP or patrol challenges the unit. The order also must specify what to do in the event of casualties.

(8) ***Methods of Handling Casualties and Prisoners.*** During the infiltration, it may be hard to evacuate casualties or move prisoners without jeopardizing security. Casualties can be carried to the ORP or linkup point and evacuated when the operation has ended, or they can be concealed and left for pickup later. Moving casualties or prisoners to the ORP is dangerous when trying to avoid detection. Soldiers with medical supplies stay with any casualties left behind. The killed in action (KIA) can be concealed and recovered later. Leave prisoners under guard at a rally point and evacuate them when the operation is over.

(9) ***Rehearsals.*** Every soldier must know the plan and his role in it. Units should rehearse their formations, their movement techniques, and their actions--

- On enemy contact.
- At rally points.
- At the linkup point.
- At the ORP.
- At danger areas.
- At the objective.

4-38. OVERWATCH

Overwatch is the component of tactical movement in which an element observes and, if necessary, provides direct fire support for a friendly moving element. Situational understanding of the tactical environment is crucial for the overwatch unit, whose objective is to prevent the enemy from surprising and engaging the moving unit. The overwatch force must maintain communications with the moving element and provide early warning of enemy elements that could affect it. The overwatch must be able to support the moving element with immediate direct (to include dismounted antiarmor fires) and indirect fires; it can do this in either bounding overwatch or traveling overwatch. The key to successful overwatch is aggressive scanning of gaps and dead space within the moving element’s formation and on surrounding terrain. If the overwatch is unable to scan gaps and dead space and effectively engage the enemy, it must alert the moving element of the lapse in coverage. The moving element normally adjusts its movement speed, formation, or both, and initiates its own overwatch until the

overwatch force completes movement to a position from which it can continue the overwatch mission.

a. **Bounding Overwatch.** The overwatch element occupies firing positions that afford effective cover and concealment, unobstructed observation, and clear fields of fire. The leader of the overwatch element (such as the SBCT infantry commander, platoon leader, or section leader) assigns sectors of observation and fire. The overwatch element is responsible for its own security during both occupation of the overwatch position and execution of the operation. A common security measure is to clear the position with the infantry prior to occupying with the vehicles.

(1) Squads or platoons scan their assigned sectors to identify enemy elements and positions. The leader must structure the mission so the overwatch element can effectively scan for known or likely enemy positions, paying close attention to possible gaps and dead space. The overwatching element must have a clear understanding of the enemy situation so soldiers know what to look for and where to look. They use applicable search techniques and employ all available sights and other visual devices (such as binoculars and night vision goggles).

(2) If contact is made, the overwatch element initiates a high volume of direct fires. It moves between primary and alternate positions as necessary to avoid being decisively engaged by the enemy.

b. **Traveling Overwatch.** While maintaining its location in the overall unit formation, the overwatch element (usually a platoon or section) continuously scans the lead element's battle space and closely monitors all potential gaps and dead space. The overwatch maintains a specified interval from the lead element; this interval is dictated by weapons capabilities and the effects of terrain and movement speed. As needed, the overwatch can execute short halts to provide more effective observation, facilitating acquisition of enemy forces.

4-39. FOLLOW AND SUPPORT

Follow and support forces are employed in the offense to maintain the momentum of an operation. They do this by providing support or assistance that relieves the lead element of hindrances that could slow its advance. Follow and support missions are usually assigned when the enemy situation is vague and speed of the operation is important.

a. The SBCT infantry company may be task-organized to conduct follow and support missions in one of several ways:

- It can be part of an SBCT battalion with the mission of maintaining the momentum of a brigade attack.
- It can function as a separate maneuver element in support of the movement of another SBCT battalion element.
- Platoons within the company may conduct follow and support missions in support of other infantry elements.

b. Follow and support operations may require the company to conduct a variety of tactical tasks, including the following:

- Conduct linkup operations with the lead element's fixing or overwatch force.
- Destroy bypassed pockets of resistance.
- Secure the flanks of a penetration to prevent the enemy from closing the penetration.

- Secure lines of communications.
- Secure bypassed key terrain.
- Protect key installations.
- Guard EPWs.
- Evacuate casualties.

c. The follow and support force receives information on the enemy or the supporting tasks from the lead element's fixing or overwatch force.

d. The follow and support force conducts linkup with the fixing force on the ground, completes the exchange of critical tactical information, and accepts responsibility for the assigned tasks. The fixing force then rejoins the lead element, and the follow and support force executes its tasks. If enemy contact occurs, the follow and support force conducts actions on contact as outlined earlier in this chapter.

4-40. BYPASS

The company may bypass an enemy force or obstacle to maintain the momentum of the attack or for another tactical purpose. The SBCT battalion commander often establishes bypass criteria.

a. The SBCT infantry company commander designates a fixing force to maintain contact with the enemy and assist the remainder of the company during the bypass. This fixing force may not come into direct fire contact with the enemy force.

b. The bypassing force uses covered and concealed routes and, if possible, moves along bypass routes that are outside the enemy's direct fire range. If the situation dictates, the company can also employ smoke to obscure the enemy or to screen the bypassing force's movement. The company must conduct adequate reconnaissance of the route to confirm the feasibility of the bypass; the enemy may intentionally leave a bypass route unguarded to draw attacking forces into his kill sacks.

c. Once the rest of the SBCT infantry company clears the enemy position, the fixing platoon normally hands the enemy over to a supporting force, breaks contact, and rejoins the company. The fixing platoon may be attached to the follow-on force, but this is unlikely.

4-41. CLEAR AN OBJECTIVE

The company may be tasked with clearing an objective area during an attack to facilitate the movement of the remainder of the SBCT battalion or with clearing a specific part of a larger objective area. Situations in which the SBCT infantry company may conduct the tactical task CLEAR include the following:

- Clear a defile, including high ground surrounding the defile and choke points within the defile.
- Clear a heavily wooded area.
- Clear a built-up area. (For more detailed discussions of UO, refer to FM 90-10 and FM 90-10-1.)
- Clear a road, trail, or other narrow corridor. This may include obstacles or other obstructions on the actual roadway, as well as surrounding wooded and built-up areas.

a. **Terrain Factors.** The commander must take several important terrain considerations into account in planning and executing the task CLEAR. These factors

include obstacles, avenues of approach, key terrain, observation and fields of fire, and cover and concealment:

(1) ***Obstacles.*** Obstacles influence the maneuver of any vehicle entering the objective area. The narrow corridors, trails, or roads associated with restricted terrain can be obstructed easily with wire, mines, and log cribs.

(2) ***Avenues of Approach.*** Avenues of approach are limited. Consider the impact of canalization and estimate how much longer it will take to clear the objective area.

(3) ***Key Terrain.*** Key terrain may include areas that dominate the approaches or exits for the objective area as well as any terrain that dominates the fight inside the defile, wooded area, or built-up area.

(4) ***Observation and Fields of Fire.*** Observation and fields of fire favor the enemy. The attacking force must neutralize this advantage to be successful. Identify dead space where the enemy cannot see or engage friendly forces. In addition, identify multiple support by fire positions; these are necessary to support a complex scheme of maneuver that covers the company's approach, the actual clearance task, and maneuver beyond the restricted terrain.

(5) ***Cover and Concealment.*** Cover and concealment are normally abundant for dismounted infantry elements but scarce for vehicles. Lack of cover leaves vehicles vulnerable to enemy antitank guided missile (ATGM) fires.

b. **Enemy Situation.** Careful analysis of the enemy situation is necessary for success. The enemy analysis should include the following elements:

- Determine the location of the enemy's vehicles, key weapons, and infantry elements in the area of operations.
- Identify the type and location of enemy reserve forces.
- Identify the type and location of enemy contact.
- Assess the impact of the enemy's NBC and artillery capabilities.

c. **Clearing in Restricted Terrain.** Clearing in restricted terrain is time-consuming and resource-intensive. During the planning process, the SBCT infantry company commander evaluates the tactical requirements, resources, and other considerations for each of the three steps of the operation:

- Approach the restricted terrain.
- Clear the area in and around the restricted area.
- Pass friendly forces, as required.

(1) ***Approach.*** The approach focuses on moving combat power into restricted terrain and posturing it to begin clearing. The company commander takes the following actions:

(a) Establishes support-by-fire positions; destroys or suppresses any known enemy positions to allow forces to approach the restricted terrain.

(b) Provides additional security by incorporating suppressive indirect fires and obscuring or screening smoke.

(c) Provides support by fire for the dismounted infantry. Be prepared to cover infantry elements from their dismount points to the points at which they enter the restricted terrain such as high ground on either side of a defile, wooded areas on either side of a trail or road, or buildings on either side of a road in a built-up area.

(d) Moves dismounted infantry elements along axes that provide the best available cover and concealment. The approach ends when the infantry elements are prepared to conduct an attack.

(2) ***Clear.*** The clearing begins as the infantry squads begin their attack in and around the restricted terrain.

(a) Locations where this maneuver may take place include the following:

- On both sides of a defile, either along the ridgelines or high along the walls of the defile.
- Along the wood lines parallel to a road or trail.
- Around and between buildings on either side of the roadway in a built-up area.

(b) The following actions and considerations are applicable during this step:

- The infantry squads clear in concert with the MGS and or ICVs. Vehicles provide a base of fire to protect infantry squads as they clear an area. The infantry stops at a designated point or terrain feature where observation is affected; it provides a base of fire to allow the MGS or ICVs to bound to a new support-by-fire position. This cycle continues until the entire area is cleared.
- Direct fire plans should cover responsibility for both horizontal and vertical observation and direct fire.
- Infantry squads should clear a defile from the top down and should orient on objectives on the far side of the defile.
- Dismounted engineers with manual breaching capability should move with the infantry squads. Additionally, mounted engineer assets should move with the overwatching MGS to reduce obstacles.

(3) ***Pass Friendly Forces.*** The SBCT infantry company may be directed to assist the passage of another element forward to continue the clearing. When clearing is complete, the company must be prepared to take any action necessary to pass friendly forces, such as the following:

- Within the capabilities of the company, assault to destroy enemy forces and secure the far side of the restricted terrain.
- Maneuver mounted elements to establish support-by-fire positions on the far side of the restricted terrain.
- Conduct support by fire to protect the deployment of the follow-on force that is assuming the fight or to destroy or suppress any enemy elements that threaten the SBCT battalion as it exits the restricted terrain.
- Defeat any counterattacks.
- Protect the obstacle reduction effort.
- Maintain observation beyond the restricted terrain.
- Integrate indirect fires as necessary.

4-42. THE COMPANY AS A RESERVE

The company may be held as the SBCT battalion reserve during an attack. The SBCT infantry battalion commander commits the reserve to decisively influence the action and to maintain the momentum of the attack. To exploit the success of the other attacking SBCT infantry companies and to achieve surprise, the reserve should attack the enemy from a new direction. Because of the various missions that the reserve may be assigned, the reserve commander must keep abreast of the tactical situation, know the missions and the tactical plans of the other companies, and be familiar with the terrain and the enemy situation in the objective area. The reserve must act quickly and effectively when

committed. The reserve may be assigned one or more of the following tasks as part of its be-prepared missions:

- Protect the flanks or the rear of a battalion.
- Assume the mission of another company.
- Support by fire.
- Clear a position that has been overrun or bypassed.
- Attack from a new direction.
- Assist during the consolidation on an objective.
- Guard and evacuate prisoners.

4-43. SECURITY OPERATIONS

The battalion may assign the SBCT infantry company commander a security mission, such as to screen or guard another friendly unit or asset. This may be part of the SBCT battalion counterreconnaissance mission (FM 3-21.21 [FM 7-22]). The company commander may also assign one of these tasks to his platoons as part of his scheme of maneuver. Security operations require the unit to orient on the friendly forces to prevent enemy forces from detecting, observing, and engaging. The commander analyzes the situation and develops his plan as in any tactical situation. Refer to Chapter 7 for detailed discussion of security operations.

CHAPTER 5
DEFENSIVE OPERATIONS

The SBCT infantry rifle company has the flexibility to defend in both restricted and unrestricted terrain through the use of its infantry forces and the precision direct fires of its MGS platoon. When defending against a mounted threat in open terrain, it uses its dismounted AT weapons and MGS to destroy enemy vehicles while its infantry protects its AT assets from a dismounted assault. However, this unit defends best in restricted terrain using light infantry decentralized tactics. This chapter covers specific considerations for use of vehicles (both the MGS and the ICV) in defending restricted terrain. It also addresses the defensive employment of MGS vehicles below the platoon level.

Section I. GENERAL CONSIDERATIONS

The immediate purpose of defensive actions is to resist, defeat, or destroy an enemy attack and gain the initiative for the offense. Defensive operations defeat an enemy attack, buy time, economize forces, or develop conditions favorable for offensive operations. Defensive actions alone are not decisive; they must be combined with or followed by offensive action. Though the outcome of decisive combat derives from offensive actions, commanders often find that it is necessary, even advisable, to defend. Once they make this choice, they must set the conditions for the defense in a way that allows friendly forces to withstand and hold the enemy while they prepare to seize the initiative and return to the offense. A thorough understanding of the commander's intent is especially critical in defensive operations, which demand precise integration of combat, combat service, and combat service support elements.

5-1. DEFENSIVE OPERATIONS

As part of the SBCT defensive operations, the company may defend, delay, withdraw, or counterattack. The company also may perform security tasks. The company normally defends as part of the battalion's defense in the SBCT's main battle area (MBA). The three types of defensive operations are--

- **Area Defense.** Concentrates on denying the enemy access to designated terrain for a specified time, rather than the outright destruction of the enemy. The SBCT infantry rifle company, with its enhanced mobility, has the capability to perform an area defense.
- **Mobile Defense.** Orients on the destruction of the enemy through a decisive attack(s) by a striking force. The SBCT infantry rifle company participates in a mobile defense as the striking force or as part of a larger striking force.
- **Retrograde Operations.** Forced or voluntary movements to the rear or away from the enemy. The SBCT infantry rifle company normally participates in retrograde operations as part of a larger unit.

5-2. PURPOSES

The immediate purposes of all defensive operations are to defeat an enemy attack and gain the initiative for offensive operations. The SBCT infantry company also may conduct the defense to achieve one or more of the following purposes:

- Gain time.
- Retain key terrain.
- Support other operations.
- Preoccupy the enemy in one area while friendly forces attack him in another.
- Erode enemy forces at a rapid rate while reinforcing friendly operations.

Section II. CHARACTERISTICS OF THE DEFENSE

The characteristics of the defense--preparation, security, disruption, mass, concentration, and flexibility--are planning fundamentals for the SBCT infantry company. There are two defensive patterns outlined in FM 3-90: area and mobile. (See FM 3-90 for further discussion on mobile and area defenses and the characteristics of the defense.)

5-3. PREPARATION

The defender arrives in the battle area before the attacker. He must take advantage of this by making the most thorough preparations for combat possible in the time he has. By analyzing the factors of METT-TC, the SBCT infantry rifle company commander gains an understanding of the tactical situation and identifies potential friendly and enemy weaknesses. He then war-games friendly and enemy options and synchronizes his concept of the operation with all available combat multipliers.

5-4. SECURITY

The goals of the company security effort normally include providing early warning, destroying enemy reconnaissance units, and impeding and harassing enemy main body elements. The company continues its mission until directed to displace.

5-5. DISRUPTION

Defensive plans vary with the circumstances, but all defensive concepts of operation aim at disrupting the attacker's synchronization. Counterattacks, indirect fires, obstacles, and retention of key or decisive terrain prevent the enemy from concentrating his strength against portions of the defense. Destroying enemy command and control vehicles disrupts enemy synchronization and flexibility.

5-6. MASS AND CONCENTRATION

The defender must concentrate combat power at the decisive time and place if he is to succeed. He must obtain a local advantage at points of decision. Offensive action and the use of surprise and deception are often the means of gaining this advantage. The defender must remember that this concentration refers to combat power and its effects--not just numbers of soldiers and weapons systems. To concentrate combat power, the defender normally must economize in some areas, retain a reserve, and maneuver to gain local superiority. Local counterattacks may be needed to maintain the integrity of the defense. Indirect fire can shift to critical points to concentrate destructive effects rapidly.

5-7. FLEXIBILITY

Flexibility is derived from sound preparation and effective C2. The defender must be agile enough to counter or avoid the attacker's blow and then strike back effectively. Flexibility results from a detailed mission analysis, an understanding of the unit's purpose, aggressive R&S), and, when applicable, organization in depth and retention or reconstitution of a reserve. Flexibility requires that the company commander "see the battlefield"--physically and through the COP as well as timely and accurate analog reports. Supplementary positions on secondary avenues of approach may provide additional flexibility to the company commander. After a good analysis of the terrain and enemy, reserves can be positioned to allow the company commander to react to unanticipated events.

Section III. SEQUENCE OF THE DEFENSE

As part of a larger element, the SBCT infantry rifle company conducts defensive operations in a sequence of integrated and overlapping steps. The following paragraphs focus on the tactical considerations and procedures involved in each step. This discussion illustrates an attacking enemy that uses depth in its operations, but there will be situations where a company must defend against an enemy that does not have a doctrinal operational foundation. Such a situation requires a more flexible plan that allows for more centralized combat power rather than spreading it throughout the company's area of operations.

5-8. RECONNAISSANCE AND SECURITY OPERATIONS AND ENEMY PREPARATORY FIRES

Security forces must protect friendly MBA forces and allow them to continue their defensive preparations. When possible, these security forces work in conjunction with the SBCT's RSTA squadron. The enemy will attempt to discover the defensive scheme of maneuver using reconnaissance elements and attacks by forward detachments and advance guard elements. He also will attempt to breach the SBCT battalion’s tactical obstacles.

a. **Security Force.** The goals of the SBCT battalion security force normally include providing early warning, destroying enemy reconnaissance units, and impeding and harassing enemy main body elements. The security force continues its mission until directed to displace. The SBCT battalion commander also may use security forces in his deception effort to give the illusion of strength in one area while positioning his true combat power in another. While conducting this type of security operation, the SBCT infantry rifle company may simultaneously have to prepare battle positions (BPs), creating a challenging time management problem for the commander and his subordinate leaders.

b. **Guides.** During this step, the SBCT infantry company may need to provide guides to pass the security force and may be tasked to close the passage lanes. The company also may play a role in shaping the battlefield. The SBCT battalion commander may position the company to deny likely enemy attack corridors to enhance flexibility and force enemy elements into friendly engagement areas. When it is not conducting security or preparation tasks, the company normally occupies hide positions to avoid possible chemical strikes or enemy artillery preparation.

5-9. OCCUPATION AND PREPARATION

During this step, the company reconnoiters and occupies its positions. This usually includes movement from tactical assembly areas to the actual defensive AO, led by a quartering party that clears the defensive positions. The brigade and battalion establish security forces during this step, and remaining forces begin to develop engagement areas and prepare BPs. Operational and tactical security is critical during the occupation to ensure the company can avoid detection and maintain combat power for the actual defense. Soldiers at all levels of the company must thoroughly understand their duties and responsibilities related to the occupation; they must be able to execute the occupation quickly and efficiently to maximize the time available for planning and preparation of the defense.

5-10. APPROACH OF THE ENEMY MAIN ATTACK

As this phase begins, the SBCT engages the enemy at long ranges using indirect fires, electronic warfare, and close air support (deep fight). The goal is to use these assets, along with disrupting obstacles, to shape the battlefield, to slow the enemy's advance, and to disrupt his formations. As the enemy's main body echelon approaches the SBCT battalion engagement area, the battalion may initiate indirect fires and CAS to further weaken the enemy by attrition; at the same time, the SBCT's effort normally shifts to second-echelon forces. Friendly forces occupy their actual defensive positions before the enemy reaches direct fire range; they may shift positions in response to enemy actions or other tactical factors.

NOTE: Long-range fires may be withheld in accordance with a higher commander's intent.

5-11. ENEMY ASSAULT

During this step, the enemy deploys to achieve mass at a designated point, normally employing both assault and support forces. This may leave him vulnerable to the combined effects of indirect and direct fires and integrated obstacles. The enemy may employ additional forces to fix friendly elements and prevent their repositioning. Friendly counterattack forces may be committed against the enemy flank or rear, while other friendly forces may displace to alternate, supplementary, or subsequent positions in support of the commander's scheme of maneuver. All friendly forces should be prepared for the enemy to maximize employment of combat multipliers, such as dismounted infantry operations, to create vulnerability. The enemy is also likely to use artillery, CAS, and chemical weapons to set the conditions for the assault.

5-12. COUNTERATTACK

As the enemy's momentum slows or stops, friendly forces may launch a counterattack. The counterattack may be launched purely for offensive purposes to seize the initiative from the enemy. In some cases, however, the purpose of the counterattack is mainly defensive, such as reestablishing a position or restoring control of the sector. The SBCT infantry company may participate in the counterattack as a base of fire element (providing support by fire for the counterattack force) or as the actual counterattack force.

5-13. CONSOLIDATION AND REORGANIZATION

The company must secure its sector by repositioning forces, destroying remaining enemy elements, processing EPWs, and reestablishing obstacles. The company conducts all necessary CSS functions as it prepares to continue the defense. Even when enemy forces are not actively engaging it, the SBCT infantry company must maintain awareness of the tactical situation and local security at all times during consolidation and reorganization. The company then must prepare itself for possible follow-on missions.

Section IV. PLANNING CONSIDERATIONS

The battlefield operating systems (BOS) are a listing of critical tactical activities that provide a means of reviewing preparations or execution. The synchronization and coordination of activities within each BOS and among the various BOSs are critical to the success of the SBCT infantry rifle company.

5-14. MANEUVER

Maneuver is the foundation for the employment of forces on the battlefield. It is defined as the use of movement in combination with fire (or fire potential), employed to achieve a position of advantage with respect to the enemy and to facilitate accomplishment of the mission. In the defense, effective weapons positioning is critical to the company's success. The goal of effective weapons positioning is to enable the company to mass fires at critical points on the battlefield and to enhance its survivability. To do this, the company commander must maximize the strengths of his weapons systems while minimizing the company's exposure to enemy observation and fires. The following paragraphs focus on tactical considerations for weapons positioning.

a. **Depth and Dispersion.** Dispersing positions laterally and in depth helps to protect the force from enemy observation and fires. If the terrain allows for the development of a company engagement area (EA), the positions are established in depth, allowing sufficient maneuver space within each position to establish in-depth placement of vehicles, weapons systems, and infantry elements. Fighting positions should be positioned to allow the massing of fires at critical points on the battlefield.

b. **Flank Positions.** Flank positions enable a defending force to bring fires to bear on an attacking force moving parallel to the defender's forces. An effective flank position provides the defender with a larger and more vulnerable target while leaving the attacker unsure of the location of the defense. Major considerations for successful employment of a flank position are the defender's ability to secure the flank and his ability to achieve surprise by remaining undetected. Effective fire control and fratricide avoidance measures are critical considerations in the employment of flank positions. See Appendix H for a more detailed discussion of direct fire planning and control.

c. **Displacement Planning.** Disengagement and displacement allow the company to retain its operational flexibility and tactical agility in the defense. The ultimate goals of disengagement and displacement are to enable the company to maintain standoff range and to avoid being fixed or decisively engaged by the enemy. The commander must consider several important factors in displacement planning; these include, but are not limited to, the following:

- The enemy situation (for example, an enemy attack with two battalion-size enemy units may prevent the company from disengaging).
- Disengagement criteria.
- Availability of direct fire suppression that can support disengagement by suppressing or disrupting the enemy.
- Availability of cover and concealment, indirect fires, and smoke to assist disengagement.
- Obstacle integration, including situational obstacles.
- Positioning of forces on terrain that provides an advantage to the disengaging elements (such as reverse slopes or natural obstacles).
- Identification of displacement routes and times when disengagement or displacement will take place. Routes and times are rehearsed.
- The size of the friendly force that must be available to engage the enemy in support of the displacing unit.
- Location of remount points, times allocated for remounting, and maneuver considerations for conduct of a remount in contact.

While disengagement and displacement are valuable tactical tools, they can be extremely difficult to execute in the face of a rapidly moving enemy force. In fact, displacement in contact poses such great problems that the company commander must plan for it thoroughly and rehearse displacement before the conduct of the defense. He then must carefully evaluate the situation at the time displacement in contact becomes necessary to ensure it is feasible and will not result in unacceptable personnel or equipment losses.

d. **Disengagement Criteria.** Disengagement criteria dictate to subordinate elements the circumstances under which they will displace to an alternate, supplementary, or subsequent BP. The criteria are tied to an enemy action (such as an enemy unit advancing past phase line DOG) and are linked to the friendly situation (for example, they may depend on whether artillery or an overwatch element can engage the enemy). Disengagement criteria are developed during the planning process based on the unique conditions of a specific situation; they should never be part of the unit's SOP.

e. **Direct Fire Suppression.** The attacking enemy force must not be allowed to bring effective direct and indirect fires to bear on a disengaging friendly force. Direct fires from the base of fire element, employed to suppress or disrupt the enemy, are the most effective way to facilitate disengagement. The company may receive base of fire support from another element in the battalion. In most cases, however, the company establishes its own base of fire element. Having an internal base of fire requires the company commander to carefully sequence the displacement of his forces.

f. **Cover and Concealment.** Ideally, the company and subordinate platoons should use covered and concealed routes when moving to alternate, supplementary, or subsequent BPs. Regardless of the degree of protection the route itself affords, the company and platoons should rehearse the movement. Rehearsals increase the speed at which they can conduct the move, providing an added measure of security. The commander must make a concerted effort to allocate available time to rehearse movement in limited visibility and degraded conditions.

g. **Indirect Fires and Smoke.** Artillery or mortar fires can assist the company during disengagement. Suppression fires, placed on an enemy force as it is closing inside the defender's standoff range, slow the enemy and cause him to button up. The defending

force engages the enemy with long-range precision direct fires from the MGS platoon and then disengages and moves to new positions. Smoke can obscure the enemy's vision, slow his progress, or screen the defender's movement out of the BP or along his displacement route.

h. **Obstacle Integration.** Obstacles must be integrated with direct and indirect fires. By slowing and disrupting enemy movement, obstacles provide the defender with the time necessary for displacement and allow friendly forces to employ direct and indirect fires effectively against the enemy. The modular pack mine system (MOPMS) also can be employed in support of the disengagement, either to block a key displacement route once the displacing unit has passed through it or to close a lane through a tactical obstacle. The location of obstacles in support of disengagement depends in large measure on METT-TC factors. A major consideration is that an obstacle should be positioned far enough away from the defender that he can effectively engage enemy elements on the far side of the obstacle while remaining out of range of the enemy's massed direct fires.

i. **Vehicle Employment.** Traditionally, vehicles are not employed below section level; however, if defending in restricted terrain, the SBCT infantry rifle company commander may consider a different task organization to accomplish his mission. For example, the commander's concept may lead him to incorporate ICVs within the defense concept or to task-organize a single MGS vehicle under the control of an infantry platoon leader. The commander must consider the best employment of his company assets to accomplish his mission. He must address the security of the vehicles in his plan if vehicles are not incorporated into the defense.

(1) ***Vehicles.*** The SBCT infantry company commander has several options when employing his vehicles in the defense:

- Incorporate ICVs as part of the defense.
- Dismount the weapon system from the ICVs and incorporate the weapon into the defense. Use ICVs as CASEVAC platforms.
- Prepare a separate battle position for a platoon's ICVs.
- Prepare MGS positions within platoon battle positions.
- Use the vehicles to mount a strike force.

(2) ***Vehicles in Support of Infantry.*** There are special considerations in employing the vehicles in support of the infantry fight:

- The commander must consider the vehicles' security if they are employed below platoon level.
- When dismounting the weapon system, the commander must consider the manning of the weapon system and ICV. The commander must analyze the need for increased firepower and the consequences of decreased mobility.

5-15. FIRE SUPPORT

For the indirect fire plan to be effective in the defense, the unit must plan and execute fires in a manner that achieves the intended task and purpose of each target. Indirect fires serve a variety of purposes in the defense, including the following:

- Slow and disrupt enemy movement.
- Prevent the enemy from executing breaching operations at turning or blocking obstacles.

- Destroy or delay enemy forces at obstacles using massed fires or pinpoint munitions.
- Disrupt enemy support-by-fire elements.
- Defeat attacks along infantry avenues of approach with the use of final protective fire (FPF).
- Disrupt the enemy to allow friendly elements to disengage or conduct counterattacks.
- Obscure enemy observation or screen friendly movement during disengagement and counterattacks.
- Use smoke to separate enemy echelons, to screen friendly displacement, or to silhouette enemy formations to facilitate direct fire engagement.
- Deliver scatterable mines to close lanes and gaps in obstacles, to disrupt or prevent enemy breaching operations, to disrupt enemy movement at choke points, or to separate or isolate enemy echelons.
- Provide illumination as necessary.
- Execute suppression of enemy air defense (SEAD) missions to support CAS, attack aviation, and high-payoff targets.

a. **Fire Support Assets.** In developing the fire plan, the company commander must evaluate the indirect fire systems available to provide support. Considerations include tactical capabilities, weapons ranges, and available munitions. These factors help the company commander and FSO determine the best method for achieving the task and purpose of each target in the fire plan.

b. **FIST Positioning.** The company's fire support personnel contribute significantly to the fight. Effective positioning is critical. The company commander and FSO must select positions that provide fire support personnel with unobstructed observation of the area of operations. In addition, the FSV should receive high priority for a position with enhanced survivability.

5-16. AIR DEFENSE

The focus of the air defense plan is on likely air avenues of approach for enemy fixed-wing aircraft, helicopters, and UAVs. Air avenues of approach may or may not correspond with the enemy's ground avenues of approach. ADA assets that are available to the SBCT infantry rifle company are positioned based on METT-TC factors and the SBCT infantry battalion commander's scheme of maneuver. For example, ADA assets are usually positioned about 2 kilometers apart to maximize the Stinger's capabilities in the defense. The Stinger then becomes the primary killer of rotary-wing and fixed-wing aircraft, with combined arms air defense (small arms and vehicle-mounted weapons systems) for close-in defense. In another situation, the SBCT battalion S2 and the supporting air defense commander or leader may determine that the air defense systems should be positioned independent of the friendly ground maneuver elements. These systems also are frequently used to protect friendly counterattack forces against aerial observation or attack. Another factor in air defense planning is resupply of Stinger missiles, which places unique demands on the company and requires detailed planning and consideration. It may be necessary to pre-position Stingers in the company area to facilitate timely resupply.

5-17. MOBILITY, SURVIVABILITY, AND COUNTERMOBILITY

Mobility focuses on preserving the freedom of maneuver of friendly forces. Survivability focuses on protecting friendly forces from the effects of enemy weapon systems. Countermobility limits the maneuver of enemy forces and enhances the effectiveness of fires.

a. **Mobility.** Initially during defensive preparations, mobility operations focus on the ability to resupply, reposition, and conduct rearward and forward passage of forces, material, and equipment. Once defensive preparations are complete, the focus normally shifts to supporting the company reserve, local counterattacks, and the higher HQ counterattack or reserve. Priorities set by the SBCT battalion may specify routes for improvement in support of such operations. Normally, all or most of the available engineer assets are allocated to the survivability/countermobility effort until defensive preparations are complete. At a designated time or trigger, engineers disengage from obstacle and survivability position construction and begin preparing for focused mobility operations.

b. **Survivability.** The SBCT engineer company is extremely limited in organic earthmoving equipment. It is capable of preparing hasty fighting positions and improving reverse-slope positions during the transition to a hasty defense, but to construct survivability positions for a deliberate defense, the SBCT requires equipment augmentation from a divisional engineer battalion. Thus, it is critical that SBCT infantry battalions and companies maximize the effects of terrain when selecting positions for key weapons and vehicles.

(1) Survivability positions are prepared in BPs or strongpoints to protect infantry elements, weapons systems, and vehicles. Positions can be constructed and reinforced with overhead cover to provide infantry and crew-served weapons with protection against shrapnel from air bursts.

(2) The commander prepares the company area for the arrival of the high mobility engineer excavators (HMEE) by marking positions and designating guides for the engineer vehicles. If time is available, vehicle positions are constructed with both hull-defilade firing positions and turret-defilade observation positions. In addition, the company may use digging assets for ammunition caches at alternate, supplementary, or subsequent BPs or in individual vehicle positions. In the event that the company is defending as part of a battalion defense, the process of digging all the SBCT infantry battalion assets will require many "blade hours."

(3) With limited organic engineer assets, the SBCT allocates specific equipment, by type and time, to battalions and companies. The SBCT infantry rifle company commander must know the number of blade hours and positions (vehicle and individual) he requires, understand the number of blade hours and positions allocated to him, and prepare a prioritized plan based on his analysis of "required" versus "available." For example, the company commander may have time to dig in only the positions that have the least amount of natural cover and concealment. Soil composition also should be a consideration in BP selection; sites to be avoided include those where the soil is overly soft, hard, wet, or rocky. However, placement to support the direct fire plan must be the main consideration.

(4) It is critical that all leaders understand the survivability plan and priorities, that one leader within the company is specifically designated to enforce the plan and priorities, and that completion status is accurately reported and tracked.

c. **Countermobility.** To be successful in the defense, the company commander must integrate individual obstacles into both direct and indirect fire plans, taking into account the intent of each obstacle group. At the SBCT level, obstacle intent consists of the target of the obstacle group, the desired effect on the target, and the relative location of the group. In addition, like artillery and mortar employment, obstacle emplacement must have a clear task and purpose. The purpose influences many aspects of the operation, from selection and design of obstacle sites to actual conduct of the defense. Normally, the battalion or SBCT designates the purpose of an obstacle group. (Refer to FM 90-7 for additional information on obstacle planning, siting, and turnover.)

(1) ***Tactical Obstacles.*** The SBCT battalion designs and resources tactical obstacle groups and assigns them to companies. The battalion commander provides obstacle planning guidance, in terms of obstacle intent, to company commanders and the engineer. Obstacle intent includes the target (enemy force), the desired effect (on the target), and the relative location (relative to terrain, enemy, and friendly) of the company's assigned obstacle group. For example, the battalion commander might specify this purpose: "We must deny the enemy access to our flank by turning the northern, first-echelon motorized rifle battalion (MRB) into our engagement area, allowing Companies B and C to mass their fires to destroy it." Due to the nonlinear, highly mobile nature of SBCT operations, the force relies heavily on scatterable minefield systems and sub-munitions as primary tactical obstacle construction means. These systems, with their self- and command-destruct capability, optimize flexibility and better support rapid transitions between offensive and defensive operations than do conventional mines and other constructed obstacles. The force constructs conventional minefields and obstacles only when preparing a deliberate, long-term defense. In this situation, the SBCT battalion and companies are usually augmented with assets from a divisional engineer battalion. Table 5-1 shows the symbology for each obstacle effect and describes the purpose and characteristics inherent in each.

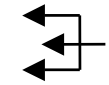
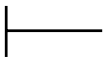
OBSTACLE EFFECT	PURPOSE	FIRES AND OBSTACLES MUST:	OBSTACLE CHARACTERISTICS
 DISRUPT ❶	• Breakup enemy formations. • Interrupt the enemy's timetable and C2. • Cause premature commitment of breach assets. • Cause the enemy to piecemeal his attack.	• Cause the enemy to deploy early. • Slow part of his formation while allowing part to advance unimpeded.	• Do not require extensive resources. • Difficult to detect at long range.
FIX ❷	• Slow an attacker within an area so he can be destroyed. • Generate the time necessary for the friendly force to disengage.	• Cause the enemy to deploy into attack formation before encountering the obstacles. • Allow the enemy to advance slowly in an EA or AO. • Make the enemy fight in multiple directions once he is in the EA or AO.	• Arrayed in depth. • Span the entire width of the avenue of approach. • Must not make the terrain appear impenetrable.
TURN ❸	• Force the enemy to move in the direction desired by the friendly commander.	• Prevent the enemy from bypassing or breaching the obstacle belt. • Maintain pressure on the enemy force throughout the turn. • Mass direct and indirect fires at the anchor point of the turn.	• Tie into impassable terrain at the anchor point. • Consist of obstacles in depth. • Provide a subtle orientation relative to the enemy's approach.
 BLOCK ❹	• Stop an attacker along a specific avenue of approach. • Prevent an attacker from passing through an AO or EA. • Stop the enemy from using an avenue of approach and force him to use another avenue of approach.	• Prevent the enemy from bypassing or penetrating through the belt. • Stop the enemy's advance. • Destroy all enemy breach efforts.	• Must tie into impassable terrain. • Consist of complex obstacles. • Defeat the enemy's mounted and dismounted breaching effort.

Table 5-1. Obstacle effects.

(2) ***Protective Obstacles.*** SBCT infantry rifle companies are responsible for planning and constructing their own protective obstacles. To be most effective, these should be tied into existing or tactical reinforcing obstacles. The company may use mines and wire from its basic load or receive additional materiel (including MOPMS, if available) from the battalion Class IV or V supply point. The company also may be responsible for any other required coordination (such as that needed in a relief in place), for recovery of the obstacle or for its destruction (as in the case of MOPMS).

(a) In planning for protective obstacles, the commander must evaluate the potential threat to the company's position and then employ the appropriate system to counter that threat. For example, MOPMS is predominantly an antitank system best used on mounted avenues of approach, but it does have some antipersonnel applications. Wire obstacles, on the other hand, may be most effective when employed on dismounted avenues. FM 90-7 provides detailed planning guidance for protective obstacle emplacement.

(b) Protective obstacles are usually located beyond hand grenade distance (40 to 100 meters) from the soldier's fighting position, and may extend out 300 to 500 meters to tie into tactical obstacles and existing restricted terrain. As with tactical obstacles, the

commander should plan protective obstacles in depth and attempt to maximize the effective range of his weapons.

(c) When planning protective obstacles, the company commander should consider the amount of time required to prepare them, the burden on the logistical system, the soldiers' loads, and the risk of the enemy detecting the obstacles and the resulting loss of surprise.

(3) ***Wire Obstacles***. There are three types of wire obstacles (Figure 5-1): protective wire, tactical wire, and supplementary wire.

(a) Protective wire may be a complex obstacle providing all-round protection of a platoon perimeter, or it may be a simple wire obstacle on the likely dismounted avenue of approach (AA) into a squad ambush position. Command-detonated M18 Claymore mines may be integrated into the protective wire or used separately.

(b) Tactical wire is positioned to increase the effectiveness of the company's fires. It usually is positioned along the friendly side of the machine gun final protective lines (FPLs). Tactical minefields also may be integrated into these wire obstacles or may be used separately.

(c) Supplementary wire obstacles are used to break up the line of tactical wire to prevent the enemy from locating friendly weapons (particularly the machine guns) by following the tactical wire.

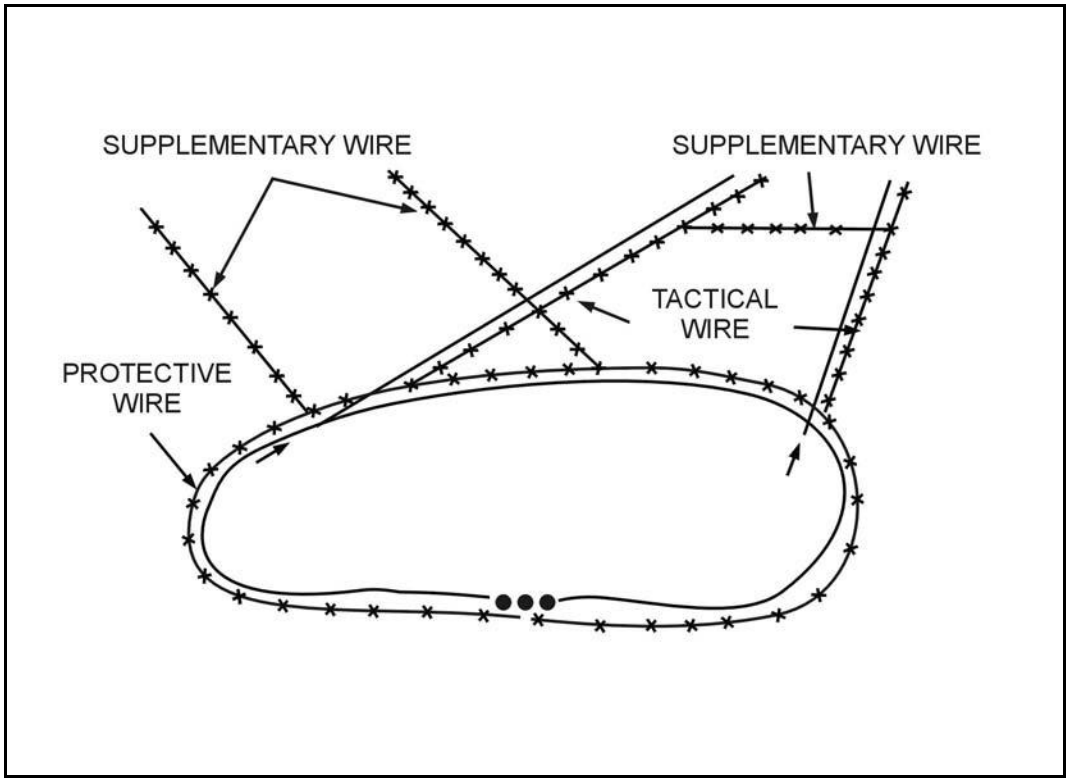


Figure 5-1. Protective wire obstacles.

(4) ***Obstacle Lanes.*** The company may be responsible for actions related to lanes through obstacles. These duties may include marking lanes in an obstacle, reporting locations of the start and end points of each lane, manning contact points, providing guides for elements passing through the obstacle, and closing the lane.

5-18. COMBAT SERVICE SUPPORT

In addition to the CSS functions required for all operations (Chapter 11), the SBCT infantry rifle company commander's planning process should include the considerations highlighted in the following paragraphs.

a. **Pre-Positioning and Caches.** The commander's mission analysis may reveal that the company's ammunition needs during an upcoming operation exceed its basic load. This requires the company to pre-position ammunition caches. The caches, which may be positioned either at an alternate or subsequent BP or with the ICVs and MGSs, should be both dug in and guarded.

b. **Position of Train.**. The company trains normally operate one terrain feature to the rear of the company to provide immediate recovery and medical support. The commander also must ensure that all elements know the locations of the SBCT battalion's combat trains and main aid stations and that they plan and rehearse casualty evacuation procedures.

Section V. PREPARATION AND INTEGRATION

The company commander's analysis determines the most effective measures for every mission. This section describes the techniques and planning considerations available to the company commander as he prepares his defense.

5-19. DEFENSIVE TECHNIQUES

The company normally defends using one of these basic defensive techniques:

- Defend in sector.
- Defend a BP.
- Defend a strongpoint.
- Defend a perimeter.
- Defend in a linear defense.
- Defend in a nonlinear defense.
- Defend on a reverse slope.

The control measures for the defense are sectors, battle positions, or a combination of these measures. There are no set criteria for selecting the control measures, but Table 5-2, page 5-14, provides some basic considerations.

BATTLE POSITION				SECTOR
WELL-DEFENDED; ENEMY CAN BE CANALIZED	←	AVENUES OF APPROACH	→	NOT EASILY DEFINED
DOMINATES AVENUES OF APPROACH	←	TERRAIN	→	DOMINATING TERRAIN NOT AVAILABLE
NARROW/SMALL	←	UNIT AREA OF OPERATIONS	→	WIDE/LARGE
ACHIEVABLE	←	MUTUAL SUPPORT	→	CANNOT EASILY BE ACHIEVED
GOOD	←	COMMANDERS' ABILITY TO SEE/CONTROL	→	DEGRADED
RETAIN, BLOCK	←	ASSIGNED TASK	→	DISRUPT, CONTAIN

Table 5-2. Selecting control measures.

5-20. SECTOR DEFENSE

A sector is the company control measure that provides the most freedom of action to a platoon. It provides the platoon with the flexibility to operate in a decentralized manner while still ensuring sufficient control exists to prevent confusion and to synchronize the company's operation. In restricted terrain, where dismounted infantry forces prefer to work, it is difficult to achieve mutual support between the company's platoon battle positions. It is also very difficult for the commander to see and control the fight throughout the company sector.

a. **Company Disposition.** The company disposition may consist of platoon sectors, a series of mutually supporting BPs on restricted terrain, or a combination of the two (Figure 5-2). Positions are arrayed in depth. The strength of the sector comes from its flexibility. This defense normally orients on the enemy force and not on retaining terrain. It is effective because it allows the enemy to expose his flanks and critical C2 and CS assets through his own maneuver into the depth of the defense.

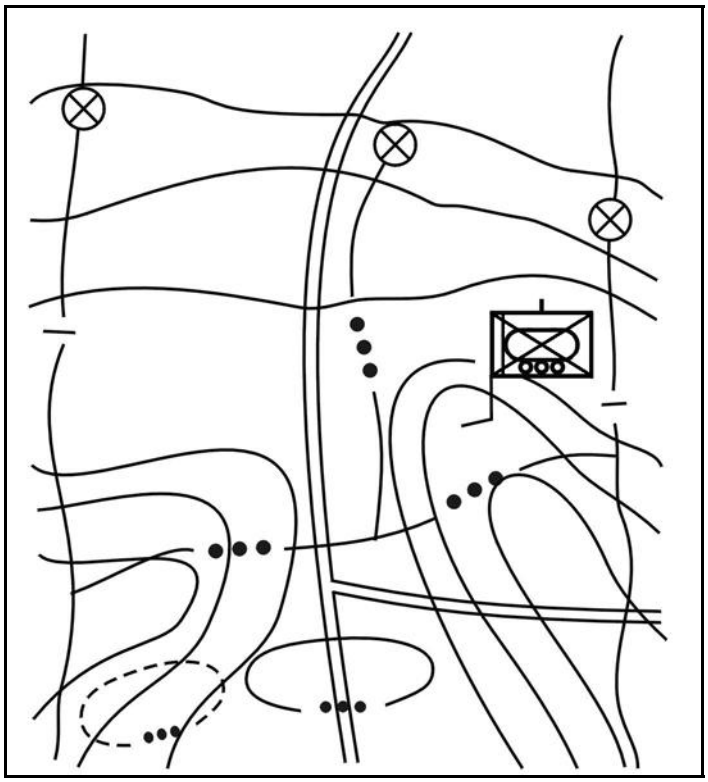


Figure 5-2. Company defense in sector, with a platoon in a BP.

b. **Decentralization.** By assigning platoon sectors, the company may fight a defense in sector very similar to a nonlinear defense. This decentralized technique for conducting a defense in sector requires greater initiative and delegates more of the control to subordinate leaders. The small-unit actions are very similar to the nonlinear defense. When required, squads or platoons may disengage independently and move to another location within the sector to continue the fight. Considerations for the company R&S plan and employment of a reserve also are very similar to the nonlinear defense.

c. **Platoon Battle Positions.** When fighting a company defense in sector from platoon battle positions, the concept is to defeat the attacker through the depth of his formation by confronting him with effective fires from mutually supporting BPs as he attempts to maneuver around them. Infantry positions, patrols, mines, and other obstacles cover gaps that, due to terrain masking or heavy woods, cannot be covered effectively by direct fire. Units remain in place except for local or internal movement to alternate or supplementary positions. If certain platoon positions become untenable during the battle, the company commander may withdraw the platoons according to prepared plans.

(1) One technique is to allow the enemy to move into the EA and destroy him with massed fires. Another technique is to engage the attacker at maximum range with fires from tactical aircraft, attack helicopters, field artillery, and mortars, then to engage with organic antiarmor weapons positioned to deliver fires at maximum effective ranges from the flanks and rear. As the enemy closes, antiarmor weapons may move to alternate or supplementary firing positions within the BP to continue firing and avoid being bypassed.

(2) The company defense in sector from platoon battle positions generally requires the company commander to be able to see and control the battle. It also requires good

fields of fire to allow mutual support. If the terrain or the expected enemy course of action prevents this, the defense may be more effective if control is more decentralized and the platoons fight in sector.

(3) A significant concern, particularly when fighting from BPs, is the enemy's ability to isolate a part of the company and then fix and destroy or bypass them. Without effective mutual support between the BPs, this is likely to occur. Even with mutual support, responsive and effective indirect fire support may be critical to defending the BPs. Without immediately available fire support, a capable enemy will quickly concentrate combat power against any BP that is identified.

5-21. BATTLE POSITION DEFENSE

A battle position is a general location and orientation of forces on the ground from which units defend. The platoon is located within the general area of the BP. Security elements may be located forward and to the flanks of the BP. Platoons defending a BP may not be tied in with adjacent units; thus, the requirement for all-round security is increased. When assigning BPs, the commander assigns his platoons sectors of fire and primary positions to defend. Each position must contribute to the company's accomplishment of its assigned task and purpose within the battalion commander's concept of the operation. A commander also may assign alternate and supplementary positions to platoons, depending on the situation.

a. **Alternate Position.** An alternate position is a position to the front, flank, or slightly to the rear of the primary position (Figure 5-3). It must allow the platoon to cover the same sector of fire as the primary position. If it is to be occupied during limited visibility, it may be forward of the primary position. The alternate position may be occupied if the platoon is driven out of the primary position by enemy fire or by assault, or it may be occupied to begin the fight to deceive the enemy of the platoon's primary position.

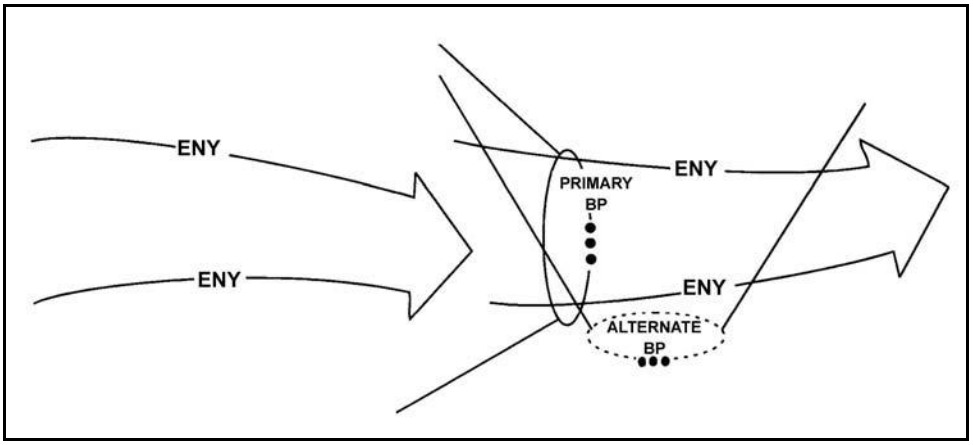


Figure 5-3. Alternate position.

b. **Supplementary Position.** A supplementary position is to the flank or the rear of the primary position. It allows the platoon to defend against an attack on an avenue of approach not covered by the primary position (Figure 5-4). It can be assigned when the platoon must cover more than one avenue of approach. A platoon moves from its

primary, alternate, or supplementary position only with the commander's approval or when a condition exists that the commander has prescribed as a reason to move.

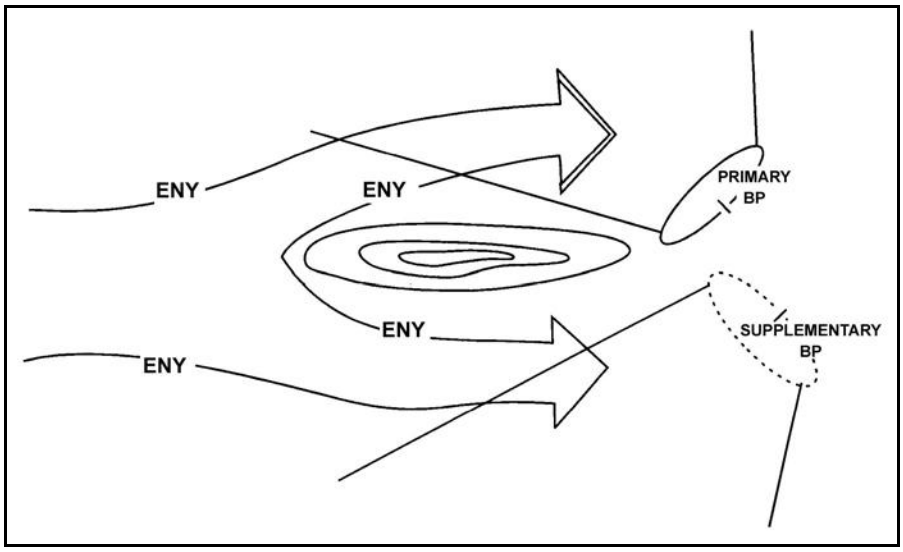


Figure 5-4. Supplementary position.

c. **Centralized Technique.** Fighting from battle positions is a more centralized technique and also may be more linear at the company level (Figure 5-5, page 5-18). Even so, it should not be a static defense. Battle positions should be positioned to achieve surprise and to allow maneuver within and between BPs. Defense from BPs is effective in concentrating combat power into an engagement area. It prevents the enemy from isolating one part of the company and concentrating his combat power in this area. Normally, platoons are assigned mutual supporting battle positions that cover the enemy's likely avenue of approach. These BPs are located on terrain that provides cover and concealment and restricts vehicular movement.

d. **Achieving Surprise.** The commander's concept for fighting this defensive technique should concentrate on achieving surprise for each of the BPs. This is accomplished by conducting an effective counterreconnaissance effort to prevent the enemy from locating the BPs and by initiating fires from one BP and waiting for the enemy to react to this engagement prior to engaging from the other BPs (Figure 5-5, page 5-18). Fighting in this manner confuses the enemy and disrupts his C2 process.

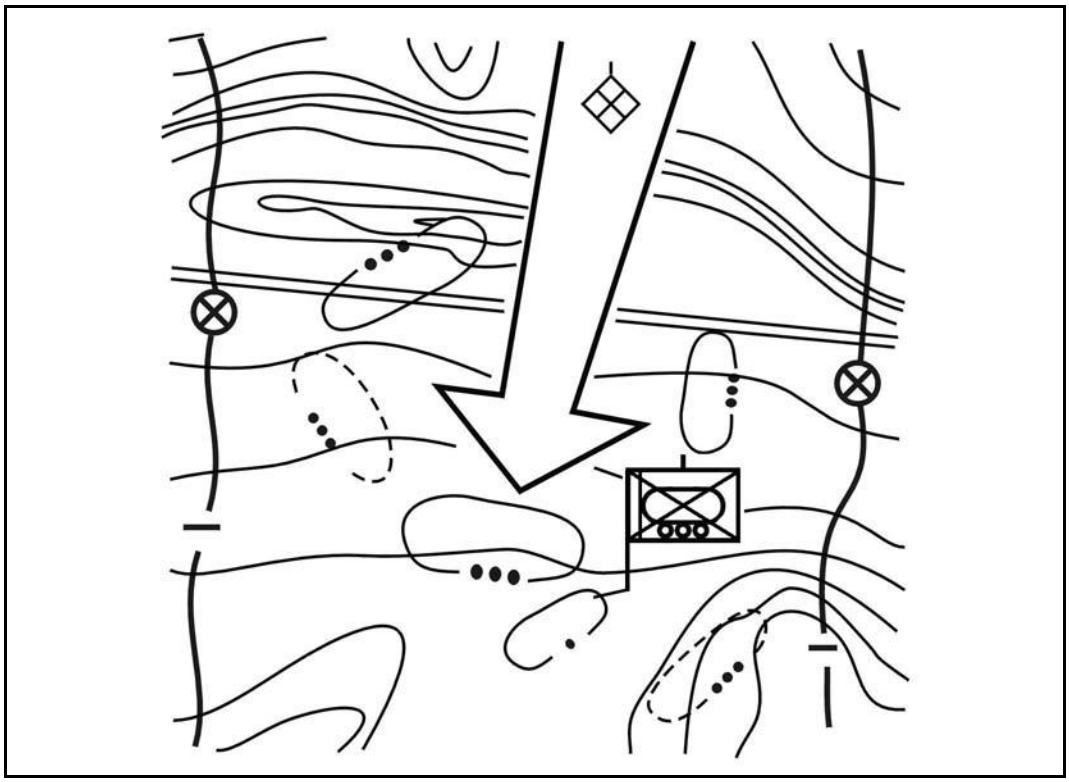


Figure 5-5. Defense from mutually supporting platoon battle positions.

(5) When the terrain provides a large EA and the commander's concept allows most of the enemy into the EA, the company may engage with massed fires from all platoon BPs. A disadvantage to this technique is that if there are still uncommitted enemy forces outside the EA, they will know the locations of the BPs and will attempt to isolate and concentrate against them. Contingency plans to disengage from these BPs and reorganize to continue the fight must be developed. This may involve displacing to alternate BPs or disengaging to conduct counterattacks or spoiling attacks against identified enemy C2, CS, or CSS assets.

(6) Instead of one company EA, multiple EAs may be identified to provide flexibility to the plan (Figure 5-6). The plan must clearly state which platoons must reorient fires into the alternate engagement area and when they must do so.

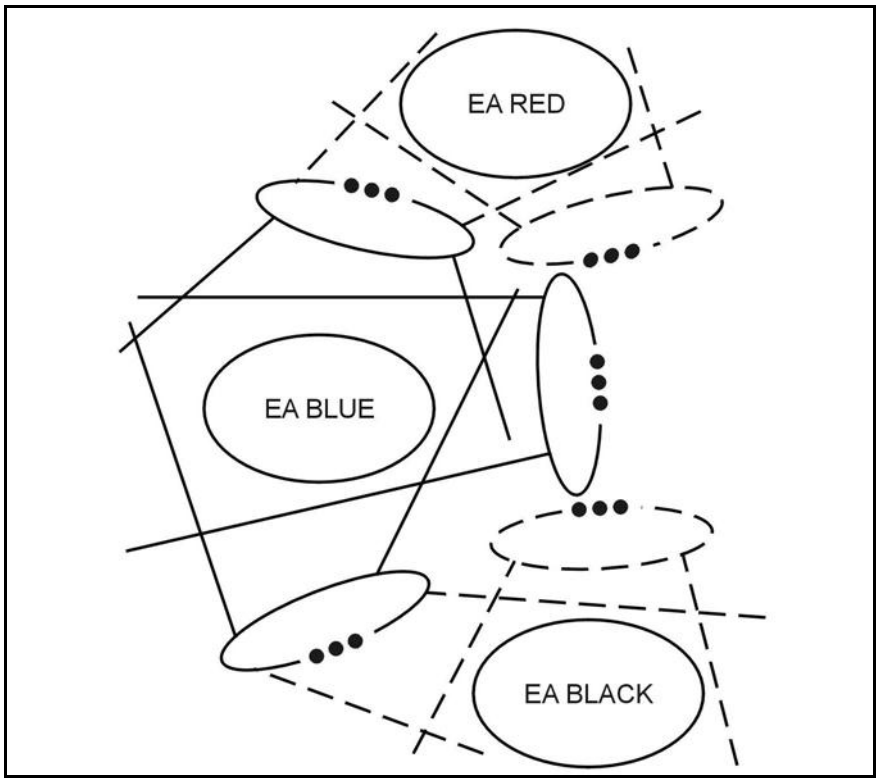


Figure 5-6. Multiple engagement areas.

5-22. STRONGPOINT DEFENSE.

A company may be directed to construct a strongpoint as part of a larger SBCT infantry battalion defense (Figure 5-7, page 5-20). In order to do so, it must be augmented with engineer support, more weapons, and CSS resources. A strongpoint is defended until the commander directing the defense formally orders the unit out of it.

a. The specific positioning of units in the strongpoint depends on the company commander's mission analysis. The same considerations for a perimeter defense apply, in addition to the following:

(1) Reinforce each individual fighting position (to include alternate and supplementary positions) to withstand small-arms fire, mortar fire, and artillery fragmentation. Stockpile food, water, ammunition, pioneer tools, and medical supplies in each fighting position.

(2) Support each individual fighting position with several others. Plan or construct covered and concealed routes between positions and along routes of supply and communication. Use these to support counterattack and maneuver within the strongpoint.

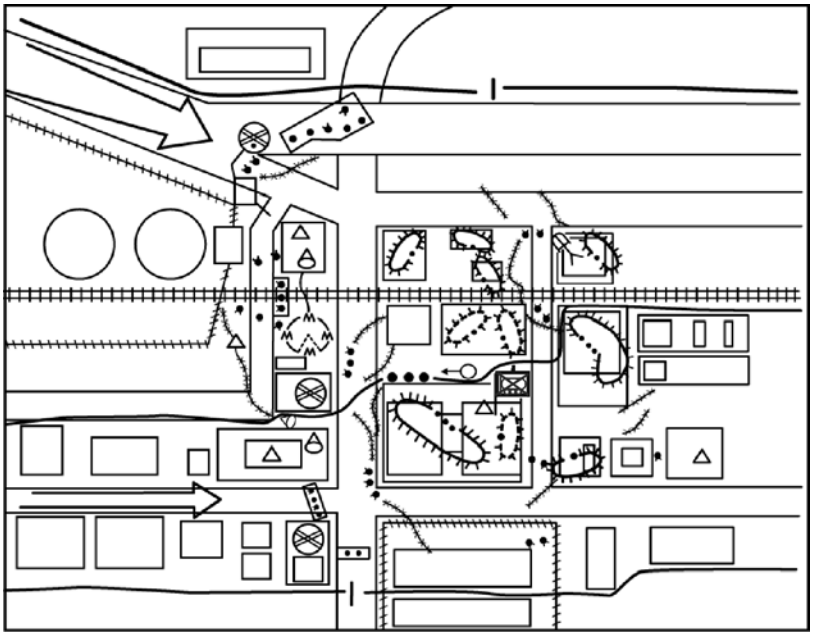


Figure 5-7. Company strongpoint.

(3) Divide the strongpoint into several independent, but mutually supporting, positions or sectors. If one of the positions or sectors must be evacuated or is overrun, limit the enemy penetration with obstacles and fires and support a counterattack.

(4) Construct obstacles and minefields to disrupt and canalize enemy formations, to reinforce fires, and to protect the strongpoint from the assault. Place the obstacles and mines out as far as friendly units can observe them, within the strongpoint, and at points in between where they will be useful.

(5) Prepare range cards for each position and confirm them by fires. Plan indirect fires in detail and register them. Also plan indirect fires for firing directly on the strongpoint using proximity fuses.

(6) Plan and test several means of communication within the strongpoint and to higher headquarters. Possibilities include radio, wire, messenger, pyrotechnics, and other signals.

(7) Improve or repair the strongpoint until the unit is relieved or withdrawn. More positions can be built, tunnels and trenches dug, existing positions improved or repaired, and barriers built or fixed.

b. A strongpoint may be part of any defensive plan. It may be built to protect vital units or installations, as an anchor around which more mobile units maneuver, or as part of a trap designed to destroy enemy forces that attack it.

c. Mold the strongpoint to the terrain and use natural camouflage and obstacles. Existing obstacles can support formidable strongpoints, providing cover, concealment, and obstacles. Complex and urban areas are also easily converted to strongpoints. Stone, brick, or steel buildings provide cover and concealment. Buildings, sewers, and some streets provide covered and concealed routes and can be rubbled to provide obstacles. Telephone systems can provide communications.

5-23. PERIMETER DEFENSE

A perimeter defense allows the defending force to orient in all directions (Figure 5-8). In terms of weapons emplacement, direct and indirect fire integration, and reserve employment, a commander conducting a perimeter defense must consider the same factors as for a strongpoint operation. The SBCT infantry rifle company may be called upon to execute this type of defense under a variety of conditions, including the following:

- When it must hold critical terrain in areas where the defense is not tied in with adjacent units.
- When it has been bypassed and isolated by the enemy and must defend in place.
- When it conducts occupation of an independent assembly area or reserve position.
- When it begins preparation of a strongpoint.
- When it is directed to concentrate fires into two or more adjacent avenues of approach.

a. **Preparations.** The SBCT infantry company prepares a perimeter defense when there are no friendly units adjacent to it (Figure 5-8, page 5-22). A perimeter defense may be used in a reserve position, in an assembly area or patrol base, on a follow-on decentralized company operation, during resupply, or when the company is isolated. The following actions constitute setting up a perimeter defense:

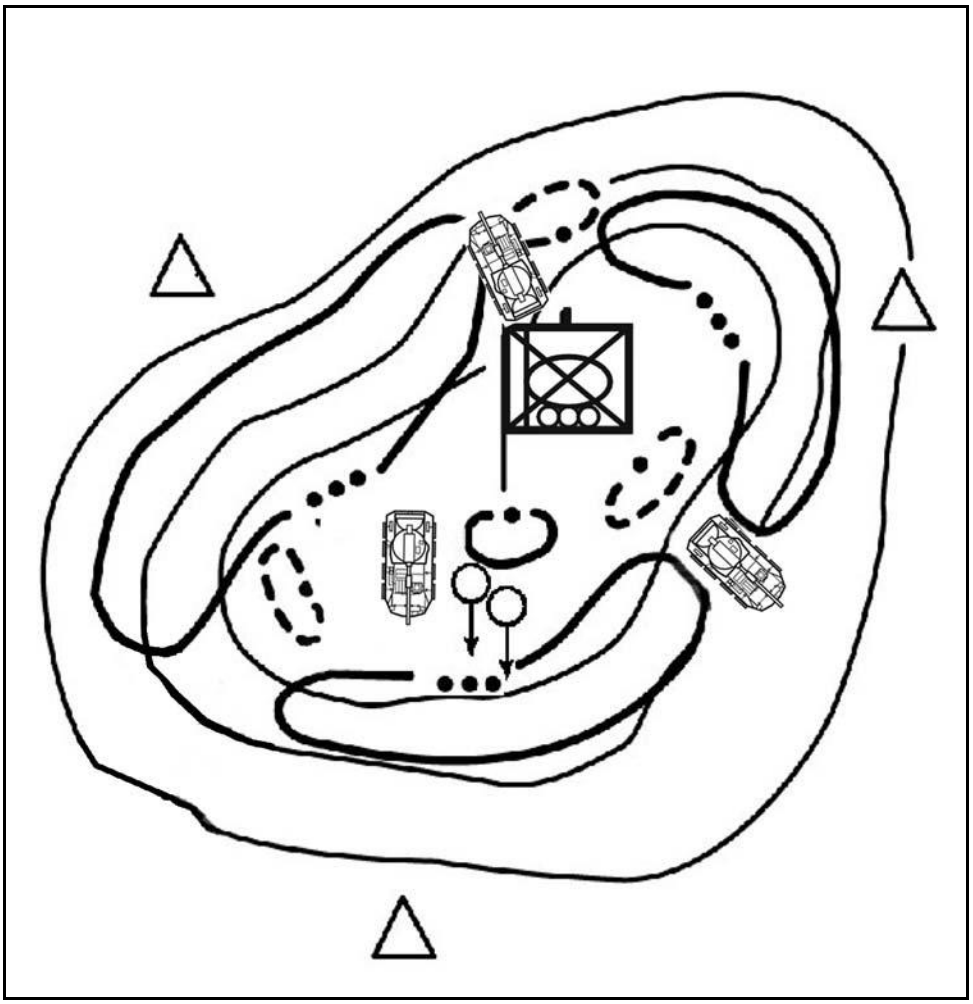


Figure 5-8. Company perimeter defense.

(1) Preparing a perimeter defense is like preparing any other position defense, but the company must disperse in a circular configuration for all-round security (the actual shape depends on the terrain). The company must be prepared to defend in all directions.

(2) The commander assigns the infantry platoon covering the most likely approach a smaller sector than the other platoons. He prepares alternate and supplementary positions within the perimeter.

(3) If available, Javelins and MGS vehicles cover likely armor approaches. They may use hide positions and move forward to fire as the enemy appears. The commander should assign several firing positions to Javelins and MGS vehicles. If there are few positions for them, they are assigned a primary position and are dug in.

(4) Keep the mortars near the center of the perimeter so their minimum range (70 meters) does not restrict their ability to fire in any direction. They should be dug in and have covered ammunition storage bunkers. They communicate by phone (the wire is buried). The fire direction center (FDC) is dug in with overhead cover.

(5) If possible, hold at least one mounted rifle squad in reserve. The company commander assigns a primary position to the rear of the platoon, covering the most

dangerous avenue of approach. He also may assign the rifle squad supplementary positions since it must be prepared to fight in all directions.

(6) Prepare obstacles in depth around the perimeter.

(7) Plan direct and indirect fire as for any type of defense. Plan and use fire support from outside the perimeter when available.

(8) Counter enemy probing attacks by area fire weapons (artillery, mortars, Claymores, and grenade launchers) to avoid revealing the locations of fighting positions.

(9) If the enemy penetrates the perimeter, the reserve blocks the penetration and covers friendly soldiers while they move to their alternate or supplementary positions. Even though the company's counterattack ability is limited, it must strive to restore its perimeter.

(10) CSS elements may support from within the perimeter or from another position. Supply and evacuation may be by air. Consider the availability of landing zones and drop zones (protected from enemy observation and fire) when selecting and preparing the position.

b. **Y Variation.** The Y-shaped perimeter defense is a variation of the perimeter defense that uses the terrain effectively. This defense is used when the terrain, cover and concealment, or the fields of fire do not support the physical positioning of the platoons in a circular manner. The Y-shaped perimeter defense (Figure 5-9, page 5-24) is so named because the platoon battle positions are positioned on three different axes radiating from one central point. It is still a perimeter defense because it is effective against an attack from any direction. The Y-shaped defense provides all-round perimeter fires without having to position soldiers on the perimeter. It is most likely to be effective in mountainous terrain, but it also may be effective in a dense jungle environment due to limited fields of fire. All of the fundamentals of a perimeter defense previously discussed apply, with the following adjustments and special considerations:

(1) Although each platoon battle position has a primary orientation for its fires, each platoon must be prepared to reorient to mass fires into the EAs to its rear.

(2) When no most likely enemy approach is identified, or during limited visibility, each platoon may have half its soldiers oriented into the EAs to the front and half into the EAs to the rear. Ideally, supplementary individual fighting positions are prepared to allow the soldiers to reposition when required to mass fires into one EA.

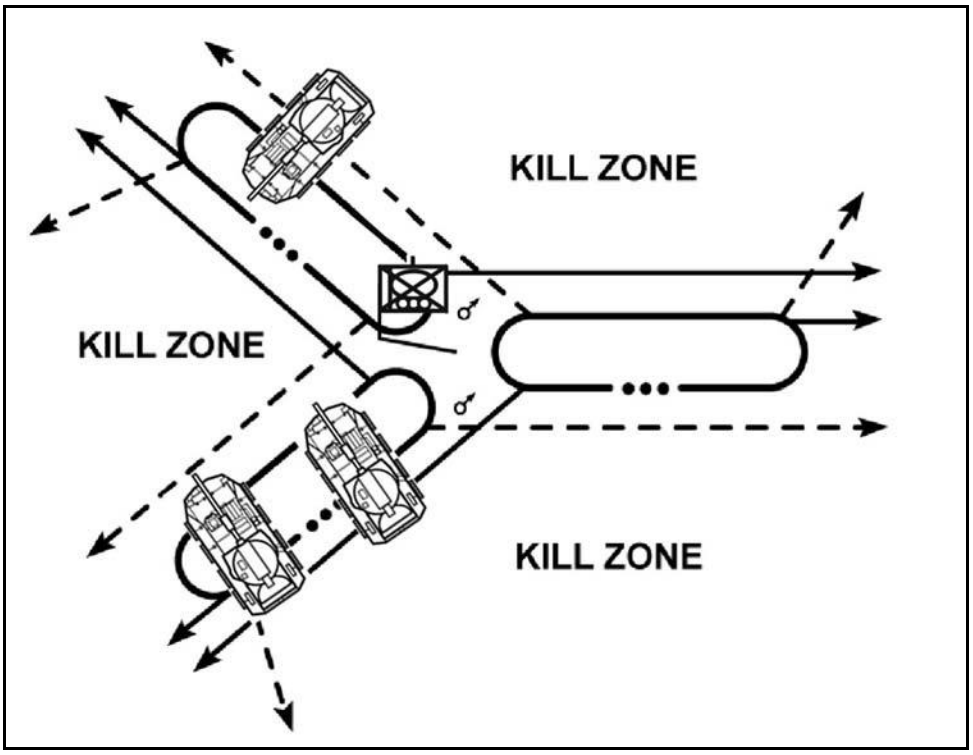


Figure 5-9. Y-shaped perimeter defense.

(3) When a most likely enemy avenue of approach is identified, the company commander may adjust the normal platoon orientations to concentrate fires (Figure 5-10). This entails accepting risk in another area of the perimeter. The company security plan should compensate for this with additional OPs, patrols, or other measures.

(4) The positioning of the company CP, mortars, a reserve, or any CSS assets is much more difficult due to a lack of depth within the perimeter.

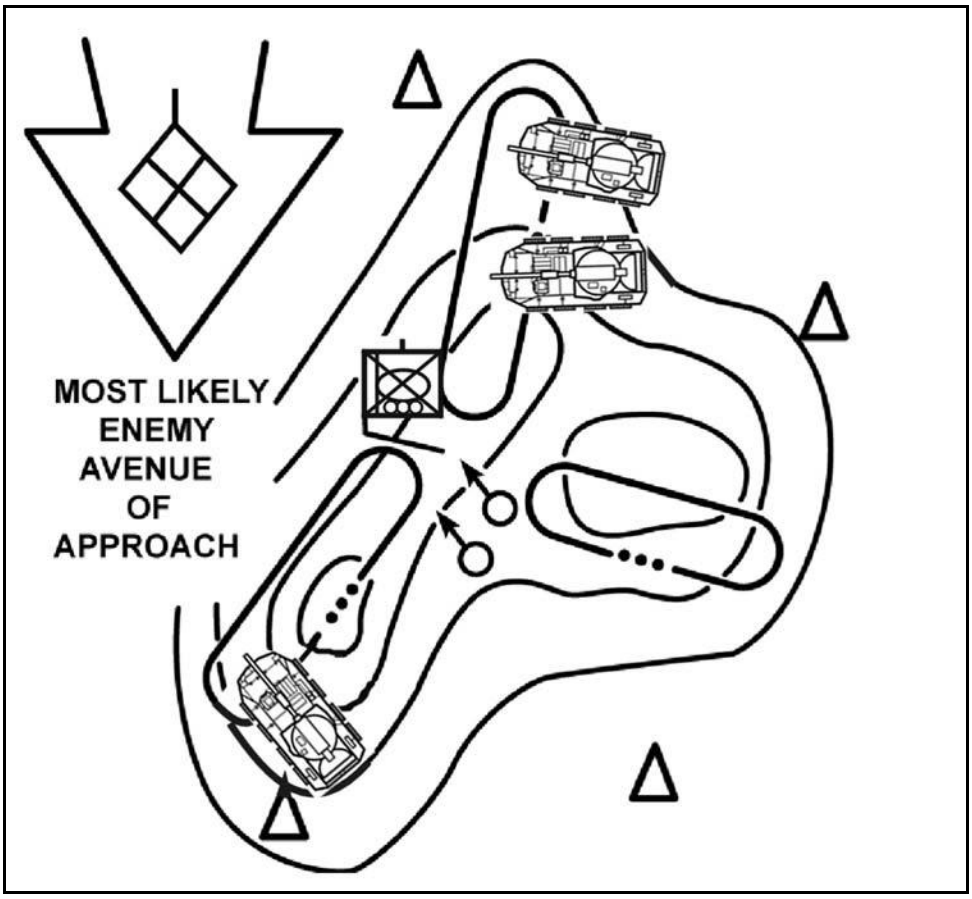


Figure 5-10. Modified Y-shaped perimeter defense.

(5) The most difficult aspect of the Y-shaped perimeter defense is the fire control measures required. To safely fight this defense without casualties from friendly fire, the leaders must ensure the limits of fire for each weapon do not allow fires into the adjacent platoon position. In a mountainous environment, firing downward into the EAs may make this more simple. Some measures to consider include:

- Position machine guns near the apex of the Y to allow an FPL that covers the platoon front while firing away from the adjacent platoon.
- Cover the areas of the EAs closest to the apex with Claymores, other mines, or obstacles to reduce the need for direct fires in these areas.
- Identify those positions at most risk to friendly fires and prepare the fighting position to protect the soldier from fires in this direction.
- The loss of one platoon position may threaten the loss of the entire company. To prevent this, plan and rehearse immediate counterattacks with a reserve or the least committed platoon.
- Consider allowing the enemy to penetrate well into the EAs and destroy him as in an ambush.
- Be aware that if a Y-shaped defense is established on the prominent terrain feature and the enemy has the ability to mass fires, he may fix the company with direct fires and destroy it with massed indirect fires.

5-24. LINEAR DEFENSE

This technique allows interlocking and overlapping observation and fields of fire across the company's front (Figure 5-11). The bulk of the company's combat power is well forward. Sufficient resources must be available to provide adequate combat power across the sector to detect and stop an attack. The company relies on fighting from well-prepared mutually supporting positions. It uses a high volume of direct and indirect fires to stop the attacker. The main concern when fighting a linear defense is the lack of flexibility and the difficulty of both seizing the initiative and seeking out enemy weaknesses. When the enemy has a mobility advantage, a linear defense may be extremely risky. Obstacles, indirect fires, and contingency planning are key to this maneuver. The company depends upon surprise, well-prepared positions, and deadly accurate fires to defeat the enemy. The reserve is usually small, perhaps a squad.

a. **Terrain Considerations.** A linear defense may be used when defensible terrain is available in the forward portion of the company's sector or to take advantage of a major linear natural obstacle. It is also used when the enemy is mainly infantry, when the company conducts a security mission such as counter-infiltration, or when directed by battalion.

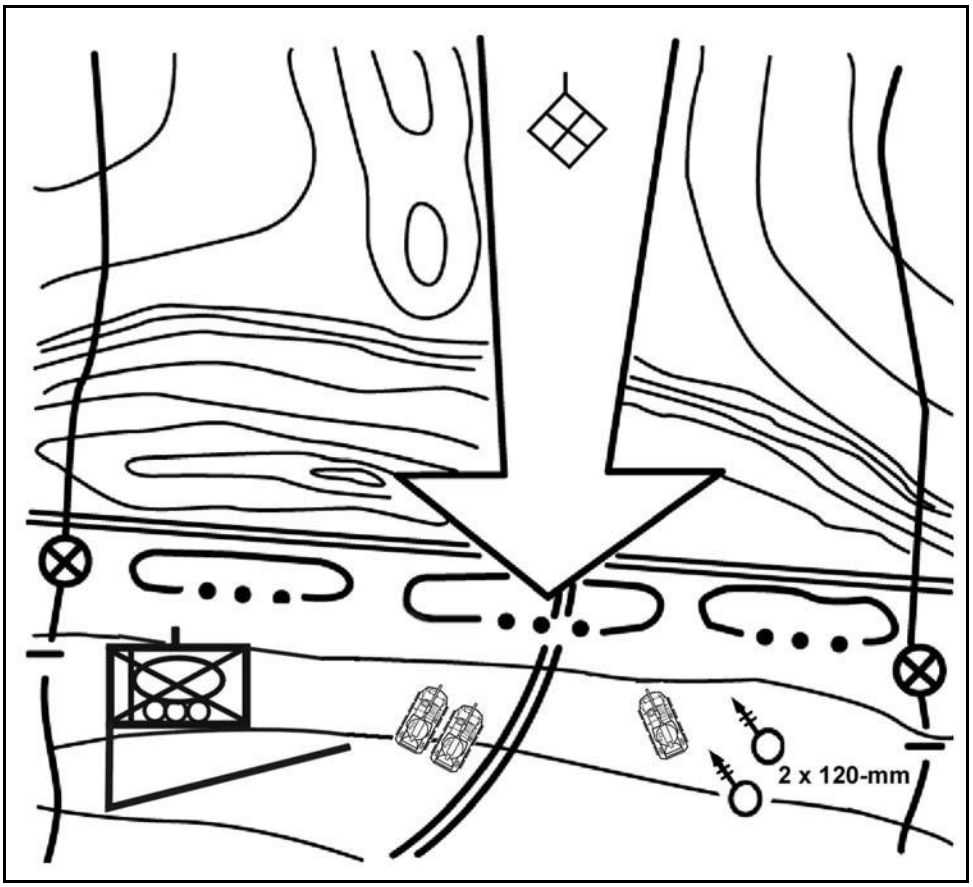


Figure 5-11. Linear defense.

b. **Obstacles.** Minefields and other obstacles are positioned and covered by fire to slow the attacker and to inflict casualties on him. Initially, engage him at long range by

supporting fires (tactical air, attack helicopters, and field artillery) to disrupt the momentum of his attack. Use fires from mortars, machine guns, and small arms as he comes into range. If he penetrates the defense, block his advance with the reserve and shift fire from the forward platoons onto the enemy flanks. Then counterattack (either by the company reserve or the least committed platoon) with intense fires to destroy isolated or weakened enemy forces and regain key terrain.

c. **Counterreconnaissance.** The counterreconnaissance effort is critical when fighting a linear defense to deny the enemy the locations of the company's forward positions. If the enemy locates the forward positions, he will concentrate combat power where he desires while fixing the rest of the company to prevent their maneuver to disrupt his attack. This effort may be enhanced by initially occupying and fighting from alternate positions forward of the primary positions. This enhances the security mission and deceives the enemy reconnaissance that may get through the security force.

5-25. NONLINEAR DEFENSE

The nonlinear defense is the most decentralized and dynamic defense conducted by an SBCT infantry company. It is frequently used when operating against an enemy force that has equal or greater firepower and mobility capabilities. This type of defense is almost exclusively enemy-oriented and is not well suited for retaining terrain. It depends on surprise, offensive action, and the initiative of small-unit leaders to be successful (Figure 5-12). It is a very fluid defense with little static positioning involved.

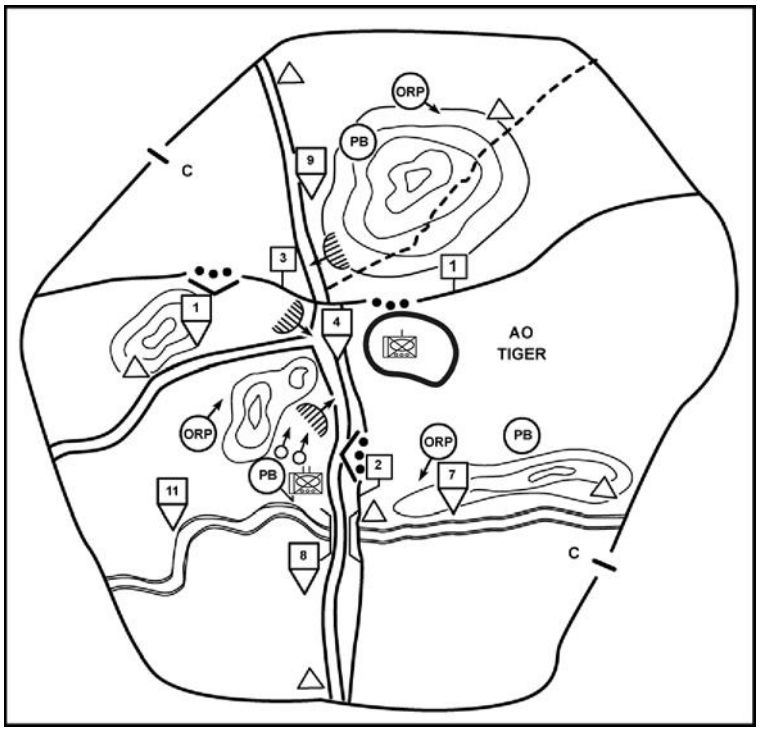


Figure 5-12. Nonlinear defense.

a. **Company Focus.** Normally, SBCT battalion directs this defensive technique when the battalion concept does not focus the company. An example is when the battalion assigns the company a sector and a mission that focuses the company on the

enemy force. Mutual support is achieved solely through the linkage of purposes in the mission statements. The company commander may decide to conduct a nonlinear defense when he finds it difficult to identify a single decisive point that allows the company to concentrate combat power and achieve its purpose. Nonlinear defense may also be appropriate in terrain that prevents mutual support between platoons or against an enemy force capable of directing overwhelming firepower against identified friendly positions.

b. **Reconnaissance and Security.** The reconnaissance and security plan for this defensive technique focuses on avoiding detection by the enemy's reconnaissance assets. Operating in smaller units supports this requirement. Preparation and activity along likely reconnaissance routes must be closely controlled. Ideally, the company allows the enemy reconnaissance to move through the area before destroying him.

c. **Platoon Sectors.** The company commander assigns platoon sectors and may also identify likely ambush positions and rally points for each platoon. He identifies a main effort and assigns the supporting efforts missions that provide mutual support and degrade the enemy's ability to generate combat power against the main effort. The main effort may be weighted by assigning priority of fires; by the allocation of mines, barrier materials, and other supplies; and by locating the company CP, casualty collection point (CCP), and most of the caches in their vicinity.

d. **Event-oriented Synchronization.** The platoons conduct numerous squad and platoon ambushes, raids, and counterattacks, but they avoid decisive engagement. Before the enemy is able to react and concentrate against these small units, they disengage and seek out another enemy weak point. The synchronization for this defense may be event-oriented or accomplished by assigning ambush locations and initiating times or signals. The event-oriented synchronization involves identifying key enemy assets or vehicles that, if destroyed or disrupted, will have the greatest detrimental effect on the enemy.

e. **Company Reserve.** A company reserve is normally quite small. Due to the extended distances over which the company and platoons operate, the timely employment of the company reserve in a decisive action is not likely. Generally, the platoons are able to employ resources more effectively. A squad-sized company reserve with ICV support could be employed under the control of the 1SG as a logistics squad, for CASEVAC, or as a reaction force to support the main effort.

f. **Other Considerations.** Other concerns include the difficulty of conducting resupply operations and casualty evacuation when defending in this manner. Resupply can be accomplished through pre-positioning of the critical supplies. CASEVAC requires detailed planning and battalion support. Platoon CCPs must be identified well forward to support each platoon. Litter teams moving on routes that avoid the enemy normally conduct the evacuation from these points to the company CCP. If possible, vehicular evacuation begins at the company collection point or as far forward as possible. Treatment teams from the BAS should be positioned at the company collection point, particularly if casualties may need to be held until darkness for evacuation.

5-26. REVERSE SLOPE DEFENSE

An alternative to defending on the forward slope of a hill or a ridge is to defend on a reverse slope (Figure 5-13). In such a defense, the company is deployed on terrain that is masked from enemy direct fire and ground observation by the crest of a hill. Although some units and weapons may be positioned on the forward slope, the crest, or the

counterslope (a forward slope of a hill to the rear of a reverse slope), most forces are on the reverse slope. The key to this defense is control of the crest by direct fire. The MGS platoon is located on the counterslope to maximize its standoff.

a. **General Considerations.** These considerations generally apply when defending on a reverse slope.

(1) The crest protects the company from direct fire. This is a distinct advantage if the attacker has greater weapons range than the defender. The reverse slope defense can eliminate or reduce the standoff advantage of the attacker. It also makes enemy adjustment of his indirect fire more difficult since he cannot see his rounds impact. It keeps the enemy's second echelon from supporting his first echelon's assault.

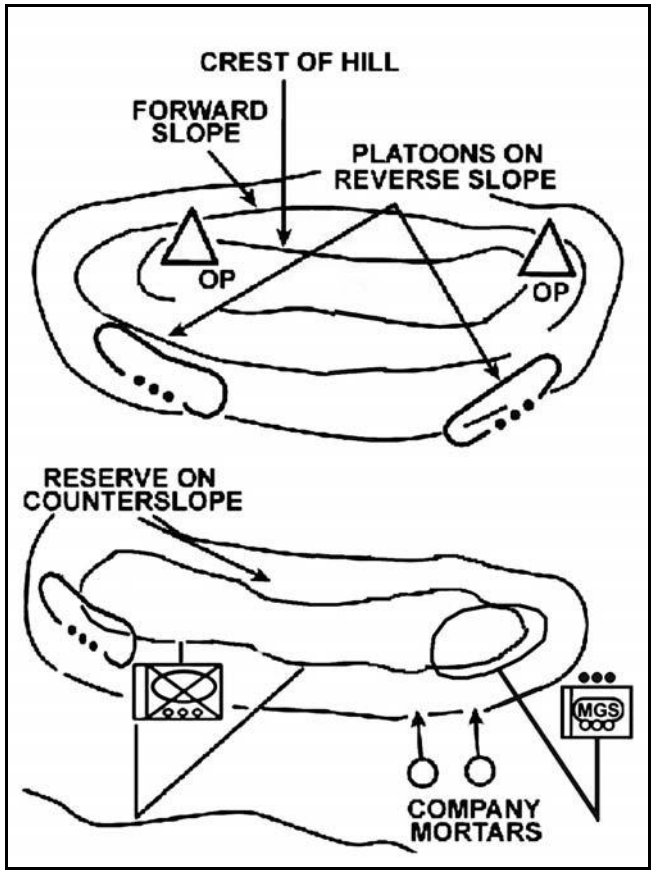


Figure 5-13. Company defense on a reverse slope.

(2) The enemy may be deceived and may advance to close contact before he discovers the defensive position. Therefore, the defender may gain the advantage of surprise.

(3) The defender can improve positions, build obstacles, and clear fields of fire without disclosing his positions.

(4) The defender may use dummy positions on the forward slope to deceive the enemy.

(5) Resupply and evacuation (when under attack) may be easier when defending on a reverse slope.

(6) Enemy target acquisition and jamming efforts are degraded. Enemy radar, infrared sights, and thermal viewers cannot detect soldiers masked by a hill. Radios with a hill between them and the enemy are less vulnerable to jamming and direction finders.

(7) Enemy use of CAS and attack helicopters is restricted. Enemy aircraft must attack defensive positions from the flank or from the rear, which makes it easier for friendly air defense weapons to hit them.

(8) A counterattacking unit has more freedom of maneuver since it is masked from the enemy's direct fire.

(9) The thinner armor on top of armored vehicles may be left open to antiarmor shots.

(10) The crest can provide protection from the blast effect of a nuclear explosion.

b. **Special Considerations.** These considerations may apply when defending on a reverse slope.

(1) Observation of the enemy is more difficult. Soldiers in this position see forward no farther than the crest. This makes it hard to determine exactly where the enemy is as he advances, especially when visibility is poor. OPs must be placed forward of the topographic crest for early warning and long-range observation.

(2) Egress from the position may be more difficult.

(3) Fields of fire are normally short.

(4) Obstacles on the forward slope can be covered only with indirect fire or by units on the flanks of the company unless some weapons systems are initially placed forward.

(5) If the enemy gains the crest, he can assault downhill. This may give him a psychological advantage.

(6) If OPs are insufficient or improperly placed, the defenders may have to fight an enemy who suddenly appears in strength at close range.

c. **Feasibility.** A defense on a reverse slope may be effective when--

(1) The enemy has more long-range weapons than the defender.

(2) The forward slope has little cover and concealment.

(3) The forward slope is untenable because of enemy fire.

(4) The forward slope has been lost or not yet gained.

(5) There are better fields of fire on the reverse slope.

(6) It adds to the surprise and deception.

d. **Plans.** The fundamentals of the defense apply to a defense on a reverse slope.

(1) Position forward platoons within 200 to 500 meters of the crest of the defended hill or ridge and site them so they block enemy approaches and exploit existing obstacles. They should permit surprise fire on the crest and on the approaches around the crest. Forward fighting positions should have rear and overhead cover to protect friendly soldiers from fratricide.

(2) Position OPs, including FIST personnel, on the crest or the forward slope of the defended hill. At night, increase OPs and patrol units to prevent infiltration. Machine guns may be attached to OPs.

(3) Position the platoon in depth or reserve where it can provide the most flexibility, support the forward platoons by fire, protect the flanks and the rear of the company, and, if necessary, counterattack. It may be positioned on the counterslope to the rear of the forward platoons if that position allows it to fire and hit the enemy when he reaches the crest of the defended hill.

(4) Position the company CP to the rear where it will not interfere with the reserve or supporting units. The company commander may have an OP on the forward slope or crest and another on the reverse slope or counterslope. He uses the OP on the forward slope or crest before the battle starts when he is trying to determine the enemy's intentions. During the fight, he moves to the OP on the reverse slope or counterslope.

(5) Plan indirect fire well forward of, on, and to the flanks of the forward slope, crest, reverse slope, and counterslope. Plan indirect FPF on the crest of the hill to control the crest and stop assaults. Put the company commander's mortar section in defilade to the rear of the counterslope.

(6) Reinforce existing obstacles. Protective obstacles on the reverse slope--just down from the crest where it can be covered by fire--can slow the enemy's advance and hold him under friendly fire.

(7) The commander normally plans counterattacks. He plans to drive the enemy off the crest by fire, if possible. He must also be prepared to drive the enemy off by fire and movement.

5-27. ENGAGEMENT AREA DEVELOPMENT

The engagement area is where the company commander intends to destroy an enemy force using the massed fires of all available weapons. The success of any engagement depends on how effectively the commander can integrate the obstacle plan, the indirect fire plan, the direct fire plan, and the terrain within the engagement area to achieve the company's tactical purpose. Beginning with evaluation of METT-TC factors, the development process covers these steps:

- Identify all likely enemy avenues of approach.
- Determine likely enemy schemes of maneuver.
- Determine where to kill the enemy.
- Emplace weapons systems.
- Plan and integrate obstacles.
- Plan and integrate indirect fires.
- Rehearse the execution of operations in the engagement area.

The following paragraphs outline planning and preparation procedures the company commander may use for each of these steps.

a. **Identify Likely Enemy Avenues of Approach.** The following procedures and considerations, as illustrated in Figure 5-14, page 5-32, apply in identifying the enemy's likely avenues of approach:

(1) Conduct initial reconnaissance. If possible, do this from the enemy's perspective along each avenue of approach into the sector or engagement area.

(2) Identify key and decisive terrain. This includes locations that afford positions of advantage over the enemy as well as natural obstacles and choke points that restrict forward movement.

(3) Determine which avenues will provide cover and concealment for the enemy while allowing him to maintain his tempo.

(4) Evaluate lateral routes adjoining each avenue of approach.

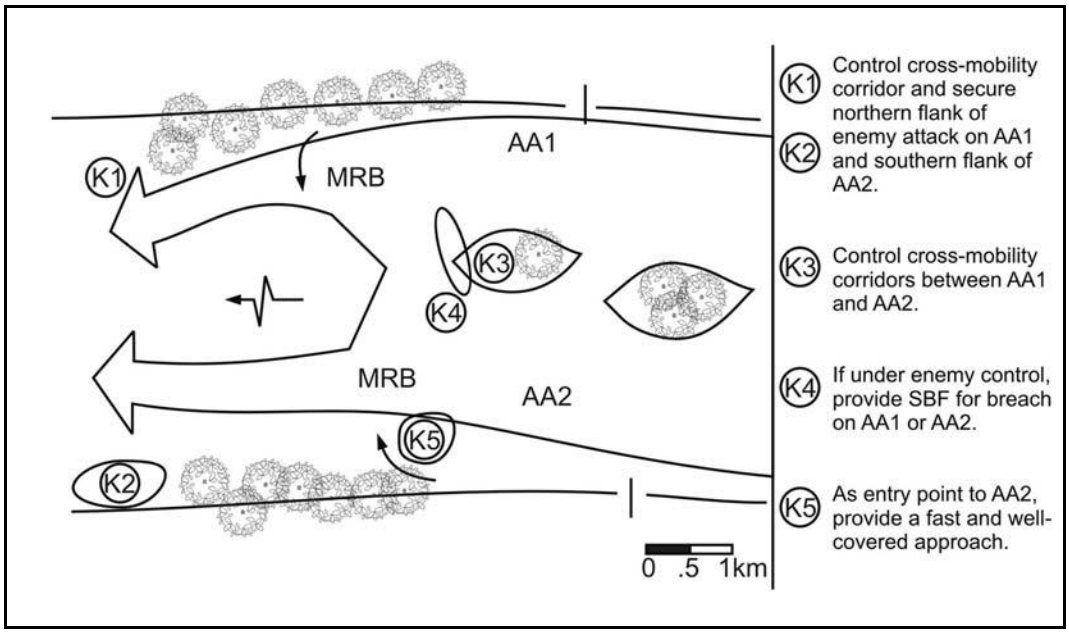

AA1
MRB
K1
K3
K4
MRB
AA2
K5
K2
0 .5 1km
K1 Control cross-mobility corridor and secure northern flank of enemy attack on AA1 and southern flank of AA2.
K3 Control cross-mobility corridors between AA1 and AA2.
K4 If under enemy control, provide SBF for breach on AA1 or AA2.
K5 As entry point to AA2, provide a fast and well-covered approach.

Figure 5-14. Identify all likely enemy avenues of approach.

b. **Determine the Enemy Scheme of Maneuver.** The company commander can use the following procedures and considerations, which are illustrated in Figure 5-15, in determining the enemy's scheme of maneuver:

(1) Determine how the enemy will structure the attack. In what formation will he attack? How will he sequence his forces?

(2) Determine how the enemy will use his reconnaissance assets. Will he attempt to infiltrate friendly positions?

(3) Determine where and when the enemy will change formations and establish support-by-fire positions.

(4) Determine where, when, and how the enemy will conduct his assault and breaching operations.

(5) Determine where and when he will commit follow-on forces.

(6) Determine the enemy's expected rates of movement.

(7) Assess the effects of his combat multipliers.

(8) Determine what reactions the enemy is likely to have in response to projected friendly actions.

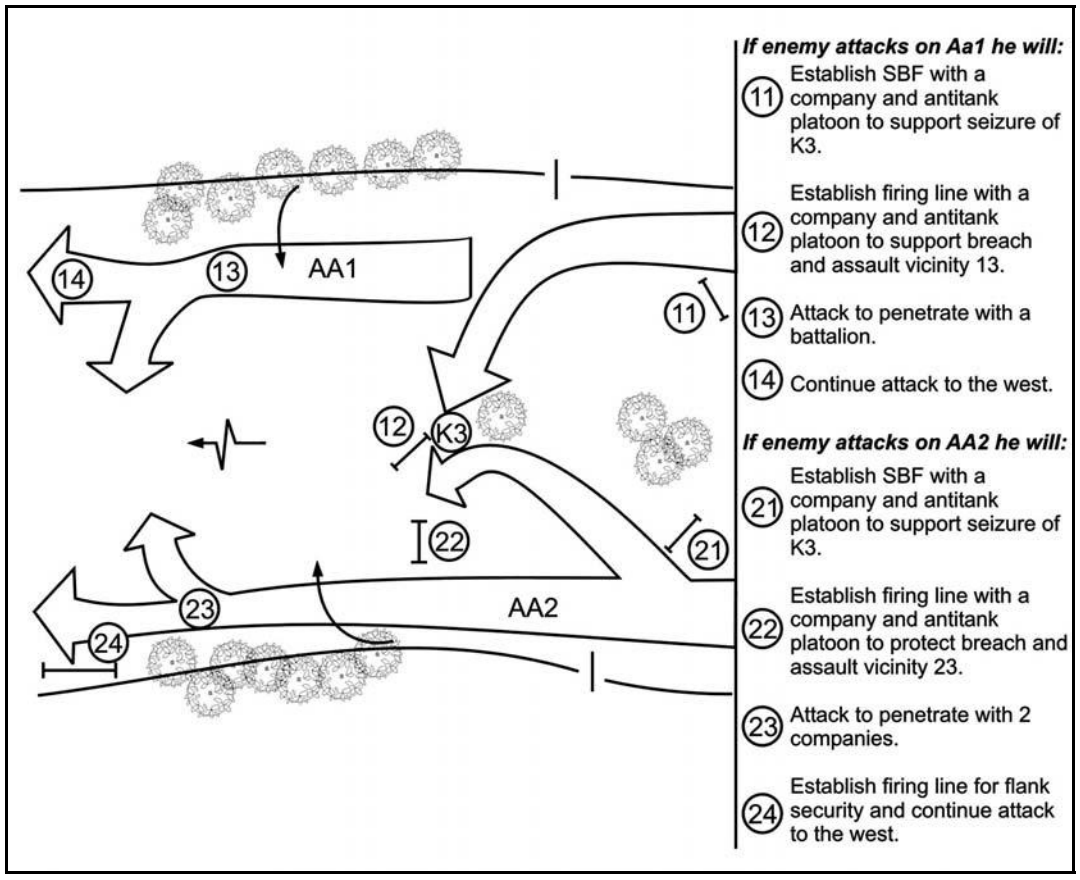

If enemy attacks on Aa1 he will:
11 Establish SBF with a company and antitank platoon to support seizure of K3.
12 Establish firing line with a company and antitank platoon to support breach and assault vicinity 13.
13 Attack to penetrate with a battalion.
14 Continue attack to the west.
If enemy attacks on AA2 he will:
21 Establish SBF with a company and antitank platoon to support seizure of K3.
22 Establish firing line with a company and antitank platoon to protect breach and assault vicinity 23.
23 Attack to penetrate with 2 companies.
24 Establish firing line for flank security and continue attack to the west.
AA1
AA2
K3

Figure 5-15. Determine the enemy's scheme of maneuver.

c. **Determine Where to Kill the Enemy.** The following steps (Figure 5-16, page 5-34) apply in identifying and marking where the SBCT battalion and company will engage the enemy:

(1) Identify TRPs that match the enemy's scheme of maneuver, allowing the company to identify where it will engage enemy forces through the depth of the sector.

(2) Identify and record the exact location of each TRP.

(3) Determine how many weapons systems must focus fires on each TRP to achieve the desired effects.

(4) Determine which platoons will mass fires on each TRP.

(5) Establish engagement areas around TRPs.

(6) Develop the direct fire planning measures necessary to focus fires at each TRP.

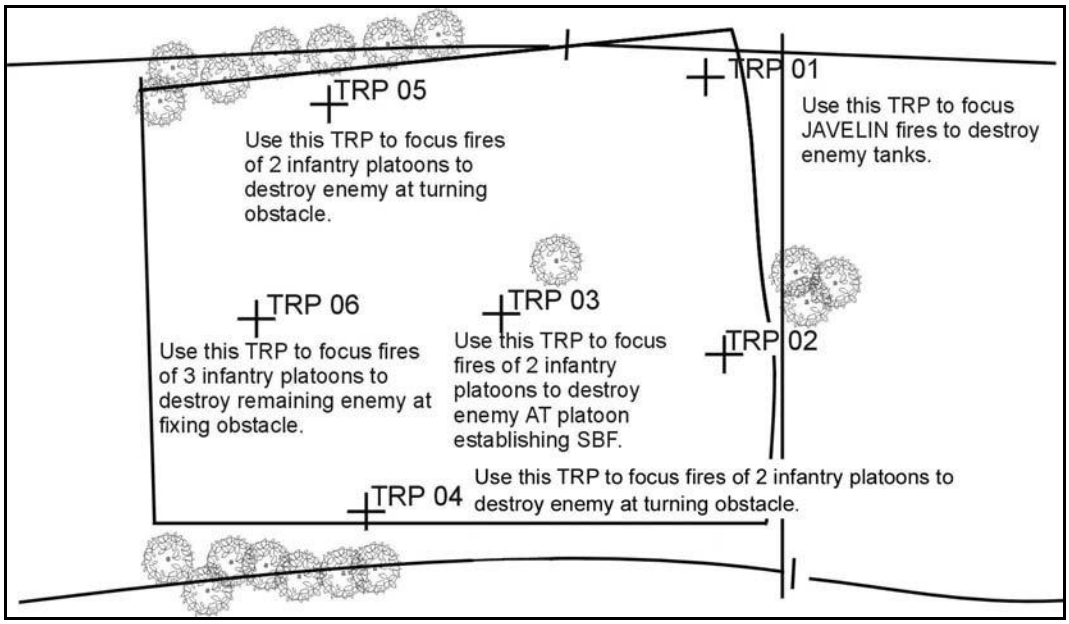

TRP 05
Use this TRP to focus fires of 2 infantry platoons to destroy enemy at turning obstacle.
TRP 01
Use this TRP to focus JAVELIN fires to destroy enemy tanks.
TRP 06
Use this TRP to focus fires of 3 infantry platoons to destroy remaining enemy at fixing obstacle.
TRP 03
Use this TRP to focus fires of 2 infantry platoons to destroy enemy AT platoon establishing SBF.
TRP 02
TRP 04
Use this TRP to focus fires of 2 infantry platoons to destroy enemy at turning obstacle.

Figure 5-16. Determine where to kill the enemy.

NOTE: In marking TRPs, use thermal sights to ensure visibility at the appropriate range under varying conditions, including daylight and limited visibility (darkness, smoke, dust, or other obscurants).

d. **Emplace Weapons System.**. The following steps apply in selecting and improving BPs and emplacing the company's vehicles (ICVs and MGSs), crew-served weapons systems, and dismounted infantry positions (Figure 5-17):

(1) Select tentative platoon BPs. (When possible, select these while moving in the engagement area. Using the enemy's perspective enables the commander to assess the survivability of the positions.)

(2) Conduct a leader's reconnaissance of the tentative BPs.

(3) Drive the engagement area to confirm that selected positions are tactically advantageous.

(4) Confirm and mark the selected BPs.

(5) Ensure that BPs do not conflict with those of adjacent units and that they are effectively tied in with adjacent positions.

(6) Select primary, alternate, and supplementary fighting positions to achieve the desired effect for each TRP.

(7) Ensure that platoon leaders, platoon sergeants, vehicle commanders, and dismounted infantry squad leaders position weapons systems so that the required number of weapons, vehicles, and platoons effectively covers each TRP.

(8) Ensure that positions allow MGS vehicle commanders, gunners, and assistant gunners (as applicable for each vehicle) to observe the engagement area from the turret-down position and engage enemy forces from the hull-down position.

(9) Site and mark vehicle positions in accordance with unit SOP so engineers can dig in the positions while vehicle commanders supervise.

(10) Proof all vehicle positions before engineer assets depart.

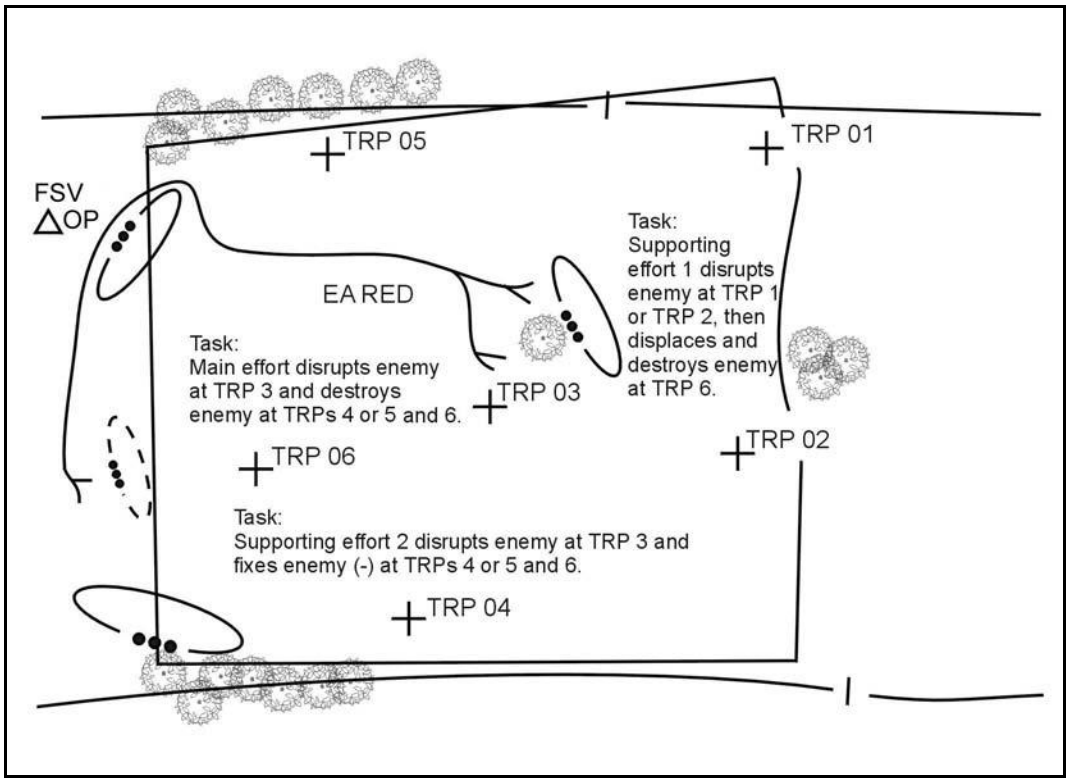

TRP 05
TRP 01
FSV
OP
EA RED
Task:
Supporting effort 1 disrupts enemy at TRP 1 or TRP 2, then displaces and destroys enemy at TRP 6.
Task:
Main effort disrupts enemy at TRP 3 and destroys enemy at TRPs 4 or 5 and 6.
TRP 03
TRP 06
TRP 02
Task:
Supporting effort 2 disrupts enemy at TRP 3 and fixes enemy (-) at TRPs 4 or 5 and 6.
TRP 04

Figure 5-17. Emplace weapons systems.

e. **Plan and Integrate Obstacles.** The following steps apply in planning and integrating obstacles in the company defense (Figure 5-18, page 5-36):

(1) Understand obstacle group intent.
(2) Coordinate with the engineers.
(3) Site and mark individual obstacle locations.
(4) Refine direct and indirect fire control measures.
(5) Identify lanes and gaps.
(6) Report obstacle locations and gaps to higher headquarters.

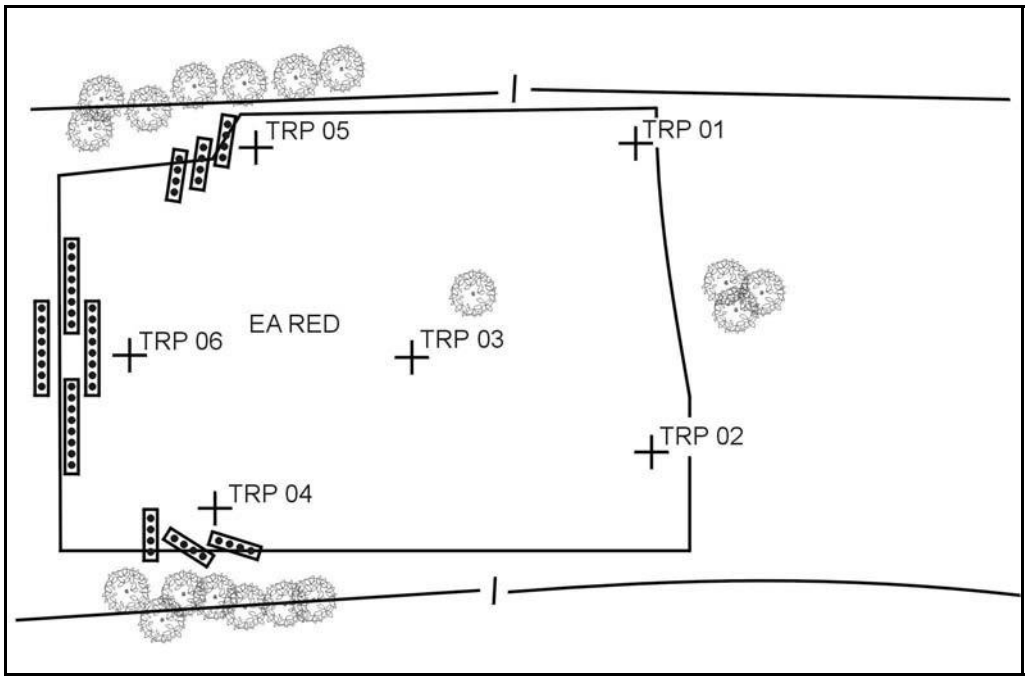


Figure 5-18. Plan and integrate obstacles.

f. **Plan and Integrate Indirect Fires.** The following steps apply in planning and integrating indirect fires (Figure 5-19):

(1) Determine the purpose of fires and the essential fire support task (EFST) that supports it.

(2) Determine where the purpose can best be achieved.

(3) Establish the observation plan, with redundancy for each target. Observers include the FIST, as well as members of maneuver elements with fire support responsibilities (such as platoon sergeants).

(4) Establish triggers.

(5) Obtain accurate target locations using lasing devices.

(6) Refine target locations to ensure coverage of obstacles.

(7) Adjust artillery and mortar targets.

(8) Plan FPFs.

(9) Request critical friendly zones (CFZs) for protection of maneuver elements and no-fire areas (NFAs) for protection of OPs and forward positions.

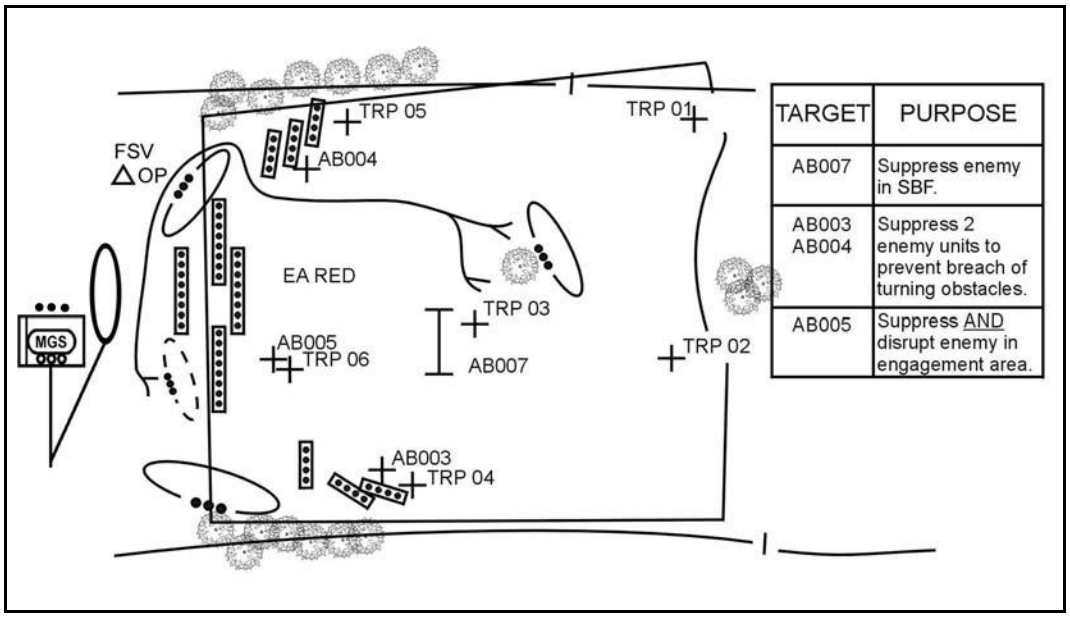


Figure 5-19. Integrate direct and indirect fires.

g. **Conduct an Engagement Area Rehearsal.** The purpose of this rehearsal is to ensure every leader and soldier understands the plan and all elements are prepared to cover their assigned areas with direct and indirect fires. Although the company commander has several options, the most common and most effective type of rehearsal is to replicate the threat. One technique for the rehearsal in the defense is to have the company trains, under the control of the company XO, move through the EA to depict the enemy force while the commander and subordinate platoons rehearse the battle from the company BP. The rehearsal should cover these actions:

- Rearward passage of security forces (as required).
- Closure of lanes (as required).
- Movement from the hide position to the BP.
- Use of fire commands, triggers, and maximum engagement lines (MELs) to initiate direct and indirect fires.
- Shifting of fires to refocus and redistribute fire effects.
- Emplacement of scatterable mine systems.
- Preparation and transmission of critical reports using frequency modulated (FM) and digital systems (as applicable).
- Assessment of the effects of enemy weapons systems.
- Displacement to alternate, supplementary, or subsequent BPs.
- Cross-leveling or resupply of Class V.
- Evacuation of casualties.

NOTE: The company commander should coordinate the rehearsal with the battalion to ensure other units' rehearsals are not planned for the same time or location. Coordination leads to more efficient use of planning and preparation time for all battalion units. It also eliminates the danger of misidentification of friendly forces in the rehearsal area, which could result in fratricide.

5-28. PRIORITY OF WORK

Priority of work is a set method of controlling the preparation and conduct of a defense. SOP should describe priority of work to include individual duties. The commander changes priorities based on the situation. All leaders in the company should have a specific priority of work for their duty position.

a. Although listed in sequence, several tasks may be performed at the same time. An example priority of work sequence is as follows:

- Establish the company R&S operation.
- Post local security.
- Position Javelins, MGS vehicles, machine guns, and soldiers; assign sectors of fire.
- Position other assets (company CP, mortars, and vehicles).
- Designate FPLs and FPFs.
- Clear fields of fire and prepare range cards and sector sketches.
- Adjust indirect fire FPFs. The firing unit FDC should provide a safety box that is clear of all friendly units before firing any adjusting rounds.
- Prepare fighting positions.
- Install wire communications, if applicable.
- Emplace obstacles and mines.
- Mark (or improve marking) for TRPs and direct fire control measures.
- Improve primary fighting positions such as overhead cover.
- Prepare alternate and supplementary positions.
- Establish sleep/rest plan.
- Reconnoiter movements.
- Rehearse engagements and disengagements or displacements.
- Adjust positions and control measures as required.
- Stockpile ammunition, food, and water.
- Dig trenches between positions.
- Reconnoiter routes.
- Continue to improve positions.

b. Routine priorities for various duty positions are listed below.

(1) ***Company Commander.*** Many of these duties can be delegated to subordinates, but the commander must ensure they are done. The commander must--

- Establish local security. Set up OPs if not already done and establish an SBCT infantry company perimeter.
- Conduct a leader's reconnaissance with the platoon leaders and selected personnel. Confirm or deny significant deductions or assumptions from the mission analysis. Designate primary, alternate, and supplementary positions for platoons, sections, and supporting elements. Require platoons to conduct coordination. Designate EAs, designate and integrate obstacles, designate the general company CP location, and position key weapons.
- Check the company CP and brief the 1SG and XO on the situation and logistics requirements.

- Upon receipt of the platoon sector sketches, make two copies of a defensive sector sketch and a fire plan. Retain one copy and forward the other to the battalion (Figure 5-20). Ideally, this is accomplished through FBCB2.
- Confirm the platoon positions before digging starts. Coordinate with the left and right units.
- Check with the battalion commander for any changes or updates in the orders.
- Finish the security, deception, counterattack, and obstacle plans.
- Walk the company positions after they are dug. Confirm clear fields of fire and complete coverage of the sector of fire of all key weapons. Look at the defensive plan from an enemy point of view, both conceptually and physically.
- Check dissemination of information, interlocking fires, dead space, and security.
- Correct deficiencies immediately.
- Report obstacle locations.

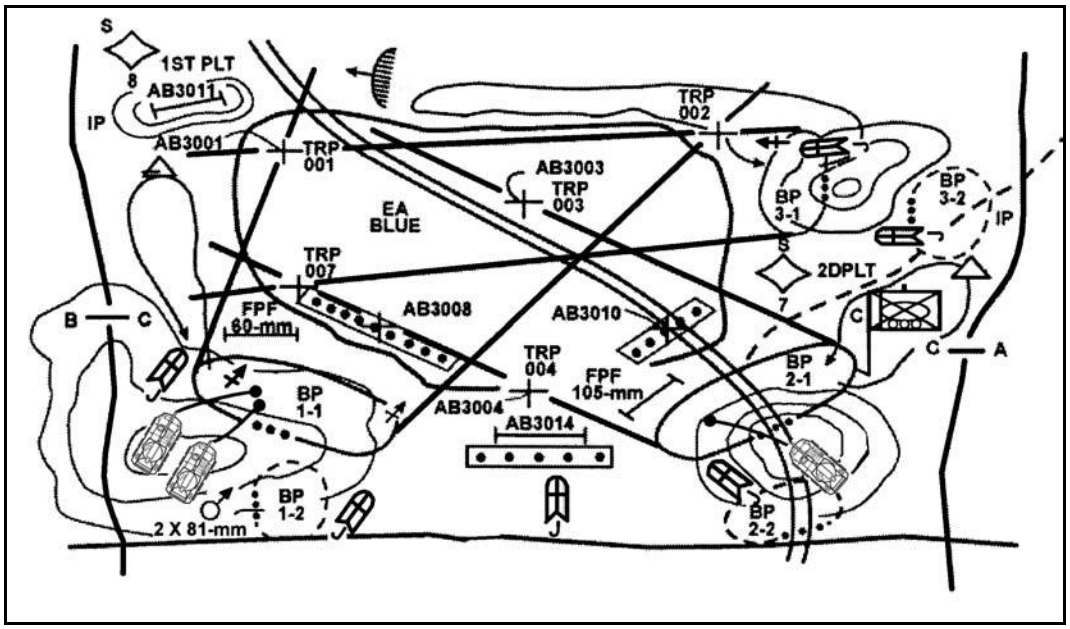


Figure 5-20. Company defensive sector sketch.

(2) ***First Sergeant and Executive Officer.*** One of them must--

- Establish the company CP and ensure that wire communications link the platoons, sections, and attached elements if applicable.
- Establish casualty collection points, company logistics release points, and EPW collection points.
- Brief platoon sergeants on the company CP location, logistics plan, and routes between positions.
- Assist the company commander with the sector sketch.
- Request and allocate pioneer tools, barrier material, rations, water, and ammunition.

- Walk the positions with the company commander. Start supervising emplacement of the platoons and sections, and check range cards and sector sketches.
- Establish routine security or alert plan, radio watch, and rest plan. Brief the company commander.
- Supervise continuously and assist the commander with other duties as assigned.

(3) ***Fire Support Officer.*** The FSO must--

- Assist the commander in planning the indirect fires to support the defense.
- Advise the commander on the current status of all firing units and on the use of smoke or illumination.
- Coordinate with the SBCT infantry battalion FSO, firing units, and platoon leaders to ensure the fire plan is synchronized and fully understood.
- Ensure the indirect fire plan is rehearsed and understood by all.
- Ensure all FPFs are adjusted in as soon as possible.
- Develop observation plan.
- Coordinate and rehearse any repositioning of observers within the company sector to ensure they can observe targets or areas of responsibility.
- Develop triggers.
- Report battlefield intelligence.
- Ensure redundancy in communications.

(4) ***Mortar Section Leader.*** He must--

- Choose tentative firing position(s) and OP(s) and complete his portion of the fire plan based on the company OPORD, coordinated with the FSO and his own analysis.
- Take part in the company leader's reconnaissance. Confirm or adjust the firing position, select OPs, and coordinate the indirect fire plan with the company FSO.
- Issue FRAGOs to the mortar squads. Conduct a section leader's reconnaissance with squad leaders. Require squad leaders to coordinate with platoons and squads for security and logistics support.
- Direct the mortar section to begin digging.
- Establish internal and external wire communications, if applicable.
- Assist the FSO in completing the fire plan and overlays.
- Register and adjust the FPF.
- Inspect the mortar position.
- Reconnoiter routes to alternate firing positions.

(5) ***Communications Specialist.*** He must--

- Supervise setting up wire, radio, voice, and digital communications with the battalion, platoons, and sections.
- Organize a radio watch.
- Supervise the performance of preventive maintenance checks and services (PMCS) on the radios.
- Assist the 1SG and XO, as required. Help organize local security for the company CP, dig fighting positions, and assist in OPORD production.

(6) ***NBC NCO.*** He must--

- Assist the commander with an updated MOPP analysis.
- Ensure that chemical detection and monitoring procedures are established and maintained.
- Coordinate for decontamination support.
- Coordinate smoke support.
- Supervise decontamination operations.
- Provide guidance on operations in NBC conditions.

5-29. ADJACENT UNIT COORDINATION

The ultimate goal of adjacent unit coordination is to ensure unity of effort in the accomplishment of the SBCT's and SBCT infantry battalion's missions. Items that adjacent units must coordinate include, but are not limited to, the following:

- Unit positions, including locations of command and control nodes.
- Locations of OPs and patrols.
- Overlapping fires (to ensure that direct fire responsibility is clearly defined).
- TRPs.
- Alternate, supplementary, and subsequent BPs.
- Indirect fire and encryption information.
- Obstacles (location and type).
- Air defense considerations, if applicable.
- Routes to be used during occupation and repositioning.
- CSS considerations.

Section VI. RETROGRADE OPERATIONS

The retrograde is a type of defensive operation that involves organized movement away from the enemy (FM 3-0). The enemy may force these operations or a commander may execute them voluntarily. In either case, the higher commander of the force executing the operation must approve the retrograde (FM 3-90). Retrograde operations are conducted to improve a tactical situation or to prevent a worse situation from developing. Companies normally conduct retrogrades as part of a larger force but may conduct independent retrogrades (withdrawal) as required, such as when conducting a raid. Retrograde operations accomplish the following:

- Resist, exhaust, and defeat enemy forces.
- Draw the enemy into an unfavorable situation.
- Avoid contact in undesirable conditions.
- Gain time.
- Disengage a force from battle for use elsewhere in other missions.
- Reposition forces, shorten lines of communication, or conform to movements of other friendly units.
- Secure more favorable terrain.

There are three types of retrograde operations:

- **Delay.** This operation allows the unit to trade space for time, avoiding decisive engagement and safeguarding its elements.

- **Withdrawal.** The commander uses this operation to break enemy contact, especially when he needs to free the unit for a new mission.
- **Retirement.** This operation is employed to move a force that is not in contact to the rear.

5-30. DELAY

A delay is a series of defensive and offensive actions over subsequent positions in depth. It is an economy of force operation that trades space for time. While the enemy gains access to the area (space) that is vacated, friendly elements gain time to conduct necessary operations and retain freedom of action and maneuver. This allows friendly forces to influence the action; they can prevent decisive engagement or postpone action to occur at a more critical time or place on the battlefield.

a. **Types of Delays.** There are two types of delay missions:
- Delay in sector.
- Delay forward of a specified line or position for a specified time.

b. **Components of Successful Delay.** For either type of delay mission, the flow of the operation can be summarized as "hit hard, then move." A successful delay has three key components:
- The ability to stop or slow the enemy's momentum while avoiding decisive engagement.
- The ability to degrade the enemy's combat power.
- The ability to maintain a mobility advantage.

c. **Delay within a Sector.** The company may be assigned a mission to delay within a sector (area of operations). The higher commander normally provides guidance regarding intent and desired effect on the enemy, but he minimizes restrictions regarding terrain, time, and coordination with adjacent forces. This form of a delay is normally assigned when force preservation is the highest priority and there is considerable depth to the battalion or SBCT's area of operations.

d. **Delay Forward of a Specified Line for a Specified Time.** The company may be assigned a mission to delay forward of a specific control measure for a specific period of time. This mission is assigned when the SBCT or battalion must control the enemy's attack and retain specified terrain to achieve some purpose relative to another element, such as setting the conditions for a counterattack, for completion of defensive preparations, or for the movement of other forces or civilians. The focus of this delay mission is clearly on time, terrain, and enemy destruction. It carries a much higher risk for the battalion, with the likelihood of all or part of the unit becoming decisively engaged. The timing of the operation is controlled graphically by a series of phase lines with associated dates and times to define the desired delay-until period.

e. **Culmination of the Delay.** Delay missions usually conclude in one of three ways--a defense, a withdrawal, or a counterattack. Planning options should address all three possibilities.

5-31. PLANNING

In preparing for the delay operation, the commander uses planning considerations that are identical to those for a defense in sector, varying only in their purpose. Planning for the

delay must cover several areas related to hindering enemy movement and maintaining mobility. These considerations include the following:

- Use of existing terrain and obstacles, enhanced as necessary by employment of reinforcing obstacles.
- Designation of positions from which the friendly force can harass or impede the enemy without risking decisive engagement itself; this is especially applicable for a delay in sector. When a battalion is delaying in sector, companies are normally assigned a series of specific BPs to enhance command and control across the sector. Likewise, in a company delay in sector, the commander will assign a series of specific BPs for each platoon.
- Assessment of opportunities to conduct limited counterattacks to disrupt enemy actions.
- Designation of high-speed avenues of withdrawal.
- Rehearsal of operations anticipated for the delay; these may include engagement of the enemy and maneuver through the delay area.

5-32. DELAY TECHNIQUES

In executing either a delay in sector or a time-related delay, the commander can choose from the following techniques:

- Delay from subsequent positions or phase lines.
- Delay from alternating positions.

a. **Delay from Subsequent Positions or Phase Lines.** This delay technique normally is used when the sector is so wide that available forces cannot occupy more than a single line of positions.

(1) The commander must be aware of several factors that may put his unit at a disadvantage during the delay:

- Lack of depth at any particular time.
- The possibility of inadequate time to prepare subsequent positions.
- Decreased security during disengagement.
- The possibility of gaps between units.

(2) When the unit receives the order to conduct the delay from its initial positions, one element (such as a company in a battalion delay or a platoon in a company delay) displaces and occupies its subsequent BP. The remainder of the unit maintains contact with the enemy until the first displacing element is in position to engage the enemy from the subsequent position. The first element then provides overwatch or base of fire as other elements displace to their subsequent positions. Figure 5-21, page 5-44, illustrates a company conducting a dismounted delay from subsequent positions.

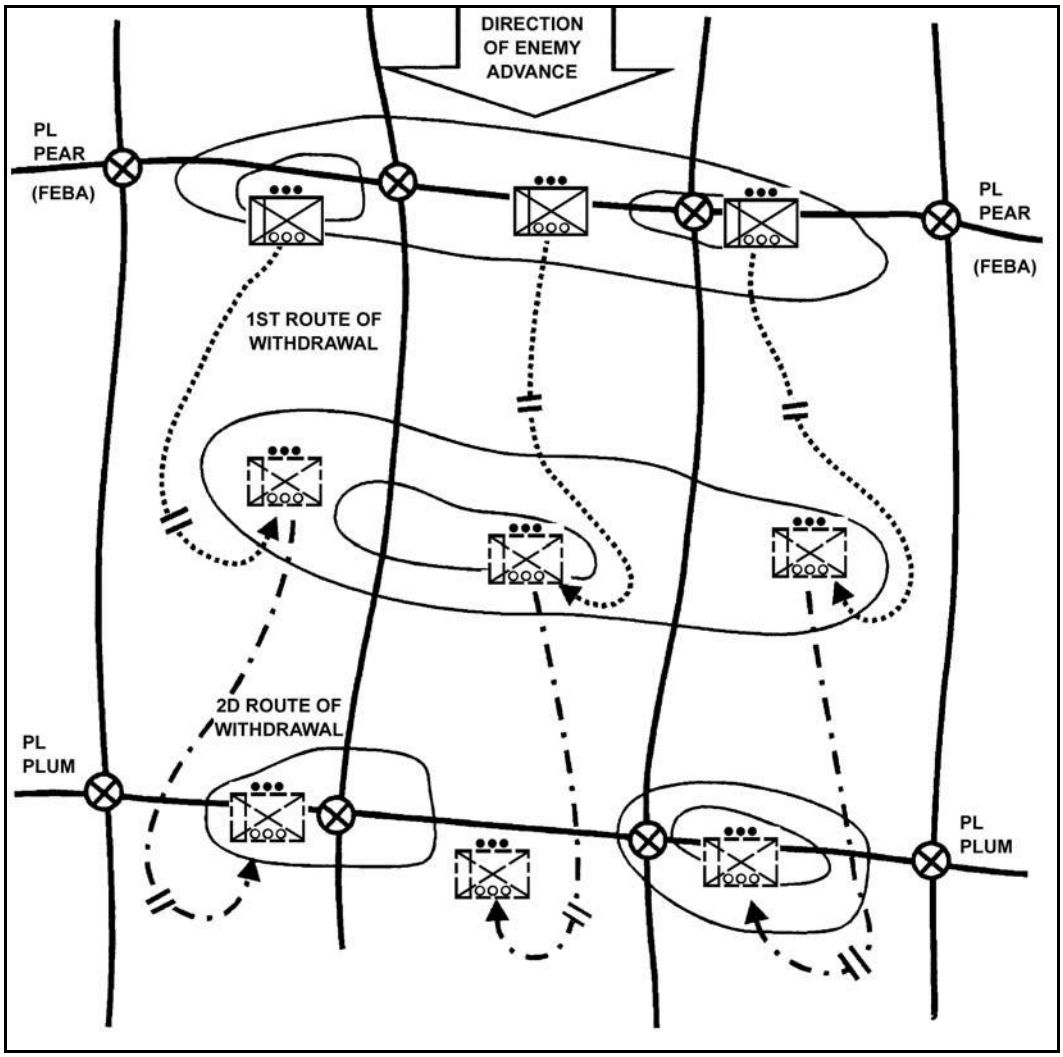


Figure 5-21. Example company dismounted delay from subsequent positions.

b. **Delay from Alternating Positions.** This method of delay may be used when the delaying element has sufficient forces to occupy more than a single line of positions (normally in a narrow sector). The delaying battalion or company arrays one or more of its subordinate elements in the initial delay positions. This first echelon then engages the enemy while the rest of the unit occupies and prepares second-echelon delay positions.

(1) The unit then alternates fighting the enemy with movement to new positions. The elements in the initial delay positions engage the enemy until ordered to displace or until their displacement criteria have been met. They then displace, moving through the second-echelon delay positions to their own subsequent positions (which become the third echelon of the delay).

(2) Elements in the second echelon overwatch the displacing units' movement and assume responsibility for engaging the enemy. This sequence continues until the delay operation is completed. Figure 5-22 illustrates a company delay from alternating positions.

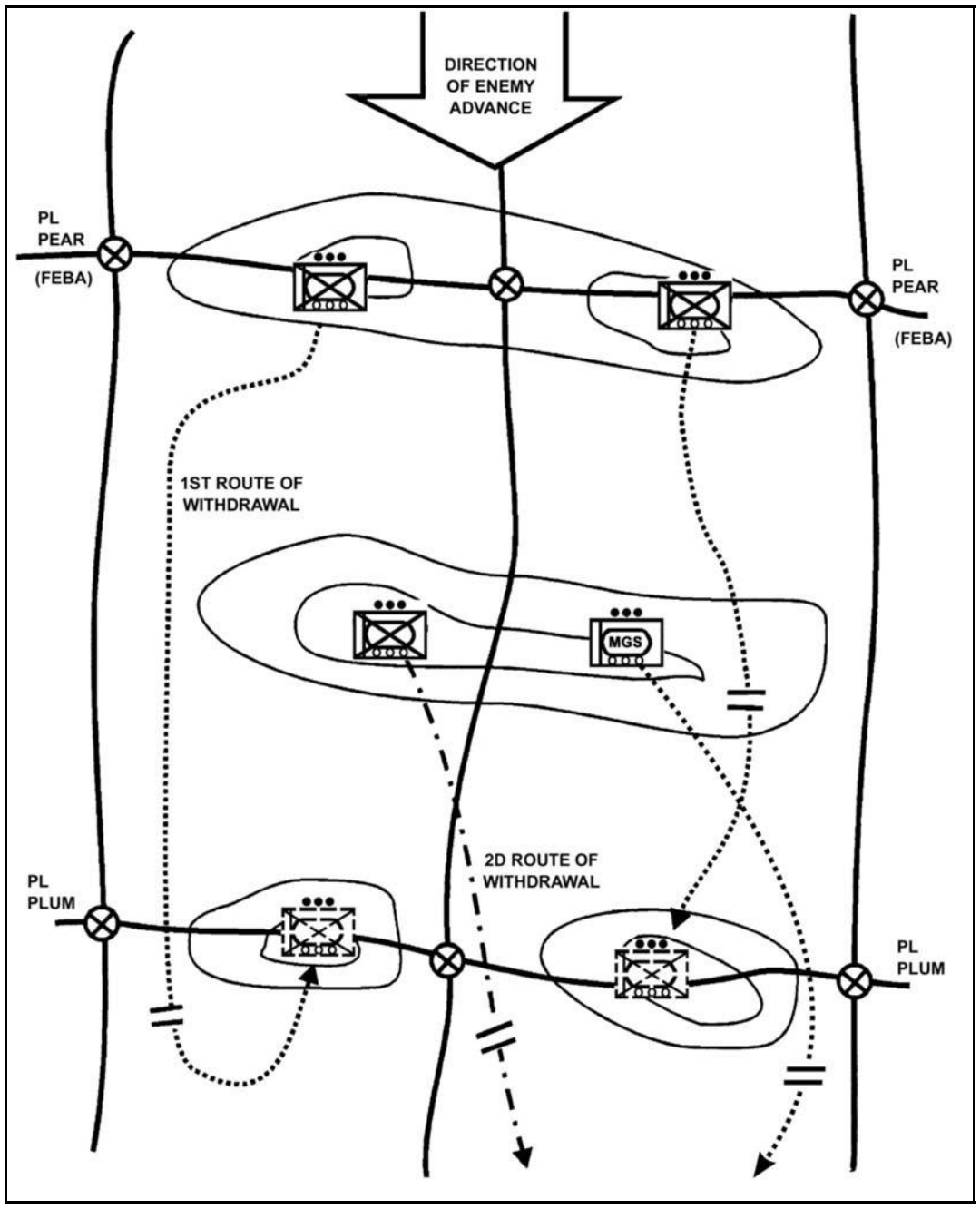


Figure 5-22. Example company delay from alternating positions.

5-33. WITHDRAWAL

Withdrawal is a planned operation in which a force in contact disengages from an enemy force. Withdrawals may or may not be conducted under enemy pressure. The two types of withdrawals are assisted and unassisted.

a. **Assisted.** The assisting force occupies positions to the rear of the withdrawing unit and prepares to accept control of the situation. It can also assist the withdrawing unit with route reconnaissance, route maintenance, fire support, and CSS. Both forces closely

coordinate the withdrawal. After coordination, the withdrawing unit delays to a battle handover line, conducts a passage of lines, and moves to its final destination.

b. **Unassisted.** The withdrawing unit establishes routes and develops plans for the withdrawal and then establishes a security force as the rear guard while the main body withdraws. CSS and CS elements normally withdraw first followed by combat forces. To deceive the enemy as to the friendly movement, the SBCT or battalion may establish a detachment left in contact (DLIC) if withdrawing under enemy pressure. As the unit withdraws, the DLIC disengages from the enemy and follows the main body to its final destination.

5-34. PHASES

Withdrawals are accomplished in three overlapping phases, which are outlined in the following paragraphs.

a. **Preparation.** The commander dispatches quartering parties, issues warning orders (WARNOs), and initiates planning. Nonessential vehicles are moved to the rear.

b. **Disengagement.** Designated elements begin movement to the rear. They break contact and conduct tactical movement to a designated assembly area or position.

c. **Security.** In this phase, a security force protects and assists the other elements as they disengage and or move to their new positions. This is done either by a DLIC, which the unit itself designates in an unassisted withdrawal, or by a security force provided by the higher headquarters in an assisted withdrawal. As necessary, the security force assumes responsibility for the sector, deceives the enemy, and protects the movement of disengaged elements by providing overwatch and suppressive fires. In an assisted withdrawal, the security phase ends when the security force has assumed responsibility for the fight and the withdrawing element has completed its movement. In an unassisted withdrawal, this phase ends when the DLIC completes its disengagement and movement to the rear.

5-35. UNASSISTED WITHDRAWAL

In an unassisted withdrawal, the unit conducting the withdrawal establishes the DLIC to maintain contact with the enemy and or to deceive him.

a. **Battalion Withdrawal.** In a battalion withdrawal, the DLIC may consist of an element from each company (under leadership of the company XO or a platoon leader), with the battalion S3 as the overall DLIC commander. As an alternative, a company may serve as the DLIC for the rest of the battalion. The company commander has several deployment options. He can reposition elements across the entire battalion frontage. Another option is to position the company to cover only the most dangerous enemy avenue of approach; other avenues into the sector are covered with observation from additional security elements provided by the battalion, such as the reconnaissance platoon.

b. **Company Unassisted Withdrawal.** The commander has similar options in an unassisted company withdrawal. He may designate one platoon to execute the DLIC mission for the company, or he can constitute the DLIC using elements from the three rifle platoons and the MGS platoon, with the XO as the DLIC commander. Figure 5-23 illustrates an example of an unassisted withdrawal.

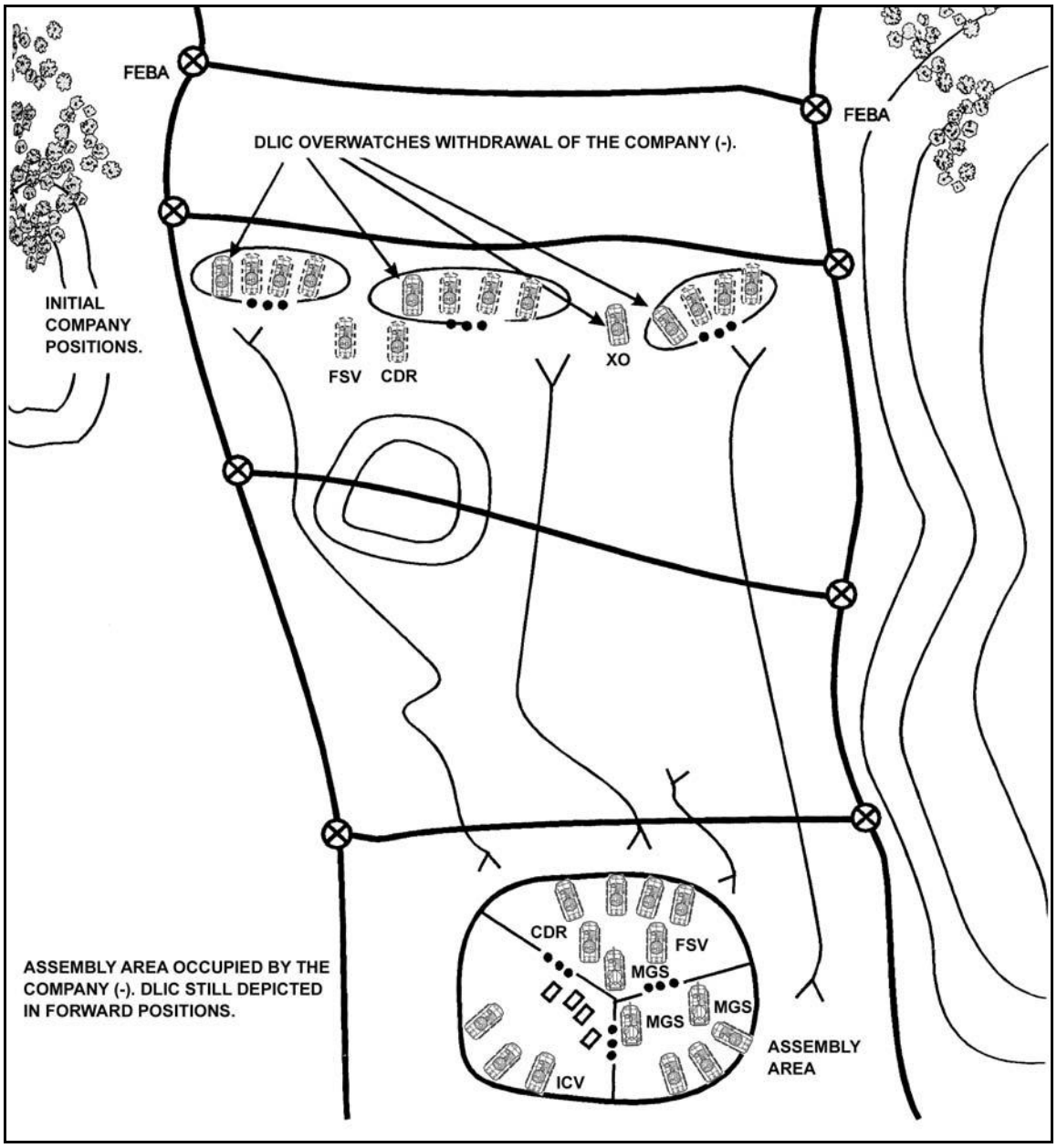


Figure 5-23. Example of an unassisted withdrawal.

5-36. ASSISTED WTHDRAWAL

In an assisted battalion withdrawal, the SBCT normally will provide a security element to maintain contact with and deceive the enemy while the battalion conducts its withdrawal. Likewise, in a company withdrawal, the battalion provides the security force. The security force establishes defensive positions behind the withdrawing unit and conducts preparations for a rearward passage of lines. The withdrawing force disengages from the enemy and conducts the rearward passage through the security force to assembly areas in the rear.

5-37. RETIREMENT

Retirement is a retrograde operation in which a force not in contact with the enemy conducts organized movement to the rear. It is normally done during periods of limited visibility. The company conducts a retirement as part of a larger force.

CHAPTER 6
URBAN OPERATIONS

The first and most fundamental lesson learned from recent operations in built-up areas is the value of the fully integrated combined-arms team. The value of infantry forces during urban combat is undeniable, but urban combat by units composed entirely of infantrymen is an historical anomaly. Across the spectrum of combat action in urban areas, powerful combined-arms teams produce the best results. Commanders at all levels must determine the actual composition of these teams based on a careful analysis. Infantry units operating alone suffer from critical shortcomings that they can overcome only by appropriate task organization with other branches to achieve a combined-arms effect. These forces must be supported by closely integrated armor, aviation, direct and indirect fire support, communications, and logistical elements.

Section I. GENERAL PLANNING CONSIDERATIONS

This section highlights the basic urban operation planning considerations for SBCT infantry company commanders.

6-1. EMPLOYMENT CONSIDERATIONS FOR COMPANY-SIZE COMBINED-ARMS TEAMS

Because of the decentralized nature of urban combat and the need for a high number of troops to conduct operations in dense, complex terrain, infantrymen will always represent the bulk of forces. At the small-unit tactical level, however, infantry forces have disadvantages that can be overcome by mechanized infantry or armor units. Conversely, vehicles face problems in the confines of urban areas which place them at a severe disadvantage when operating alone, unsupported by infantry. Only by working together can these forces accomplish their missions with minimal casualties while avoiding unnecessary collateral damage.

a. **Infantry Strengths.** The infantry has the following strengths in an urban environment:

(1) Infantry small-arms fire within a building can eliminate resistance without seriously damaging the structure.

(2) Infantrymen can move stealthily into position without alerting the enemy. Infantrymen can move over or around most urban terrain, regardless of the amount of damage to buildings.

(3) Infantrymen have excellent all-round vision and can engage targets with small-arms fire under almost all conditions.

(4) Infantrymen can clear severely restricted terrain that is not readily accessible to other forces.

b. **Mobile Gun System Strengths.** The MGS has the following strengths in an urban environment:

(1) The thermal sights on the MGS vehicle can detect enemy activity through darkness and smoke, conditions that may limit even the best-equipped infantry.

(2) The MGS vehicle can deliver devastating fires; is fully protected against antipersonnel mines, fragments, and small arms; and has excellent mobility along unblocked routes.

(3) The MGS vehicle projects a psychological presence, an aura of invulnerability that aids the friendly forces in deterring violence. Mounted patrols by MGS vehicles can monitor large areas of a city while making their presence known to the entire populace, both friendly and unfriendly.

(4) The mobile, protected firepower of MGS vehicles can add security to resupply convoys. The MGS vehicle's smoke-generation capability can aid in extracting wounded personnel and other small-unit actions.

c. **Infantry Carrier Vehicle Strengths.** The ICV has the following strengths in an urban environment:

(1) The ICV can provide protection to the infantry by negating the effects of enemy small-arms weapons, either by driving soldiers up to a building or by acting as a shield while the infantry moves behind it along a street.

(2) ICVs can resupply units quickly and with more ammunition than resupply by foot.

(3) Because of their armor protection, ICVs can be used to conduct CASEVAC under fire.

d. **Infantry Limitations.** Infantry forces have the following limitations in an urban environment:

(1) They lack heavy supporting firepower.

(2) Exposed infantry forces are subject to taking a high number of casualties.

(3) Infantry forces are more subject to fratricide-related casualties from friendly direct and indirect fire.

e. **Mobile Gun System Limitations.** The MGS has the following limitations in an urban environment:

(1) Crewmen in MGS vehicles have poor all-round vision through their vision blocks, which are easily degraded by smoke or dust.

(2) If isolated or unsupported by infantry, MGS vehicles are vulnerable to enemy teams firing light and medium antiarmor weapons.

(3) Elevation and depression limitations of the main gun limit the gunner's target acquisition capabilities in urban terrain. When operating in narrow streets or confined areas, the vehicle commander or dismounted infantry must assist the MGS gunner in acquiring targets.

(4) Improvised barricades, narrow streets and alleyways, or large amounts of rubble can block armored vehicles.

(5) Due to the length of the main gun, the turret will not rotate if a solid object such as a wall or post is in its path.

(6) Heavy fires from MGS vehicles cause unwanted collateral damage and can destabilize basic structures.

f. **Infantry Carrier Vehicle Limitations.** The ICV has the following limitations in an urban environment:

(1) If buttoned up, crewmen in ICVs have poor all-round vision through their vision blocks; they are easily blinded by smoke or dust.

(2) The ICV has only a local defense weapon system mounted. Once the infantry has dismounted and is not supporting the vehicle, its firepower is diminished.

(3) The ICV is vulnerable to anything other than small arms and particularly to AT weapons.

6-2. EMPLOYMENT OF INFANTRY AND MGS VEHICLES

An effective use of armored combat vehicles in most tactical situations is en masse. Armored units operating in platoon, company, and battalion strength combine mobility, protection, and firepower to seize the initiative from the enemy and greatly aid friendly success. However, urban combat is often so decentralized, and avenues of approach for vehicles so canalized, that massed armored combat vehicles cannot be effectively employed. Thus, the urban situation may call for fewer armored combat vehicles employed over broader areas. The decision to disperse rather than mass armored combat vehicles should be made only after a careful consideration of the factors of METT-TC, the situation, and the anticipated operations in the near future. Decentralized armored combat vehicle support greatly increases a dismounted infantry unit's combat power, but dispersed vehicles cannot be easily and quickly concentrated. If not well planned, the sudden removal of armored combat vehicles from throughout the area will necessitate a tactical pause for reorganization and a change of tactical tempo, which could disrupt the ongoing combat operation at a critical time.

a. **Mobile Gun System Employment.** The MGS can support infantry during urban combat operations (Figure 6-1, page 6-4) by--

- Providing shock action and firepower.
- Isolating objectives with direct fire to prevent enemy withdrawal, reinforcement, or counterattack.
- Neutralizing or suppressing enemy positions with smoke, HE, and automatic weapons fire as infantry closes with and destroys the enemy.
- Assisting opposed entry of infantry into buildings when enemy fire, debris, or obstacles block doorways.
- Smashing through street barricades or reducing barricades by fire.
- Obscuring enemy observation using on-board smoke generators.
- Holding cleared portions of the objective by covering avenues of approach.
- Attacking by fire any targets designated by the infantry.
- Establishing roadblocks or checkpoints.
- Suppressing identified sniper positions.

Figure 6-1. MGS in direct fire, supported by infantry.

b. **Task Organization at Company Level.** The SBCT infantry company has an organic MGS platoon. There are three basic techniques of task-organizing the MGS platoon for urban combat. Based on the factors of METT-TC, the commander may attach engineers, a sniper or sniper team, an ICV and rifle squad, or a rifle squad or fire team to the MGS platoon for a specific mission.

(1) ***MGS Platoon Retained under Company Control.*** In this technique (Figure 6-2), the MGS platoon leader is responsible for maneuvering the MGS vehicles IAW the company commander's intent. With this task organization, likely missions for MGS vehicles are to support by fire or to overwatch movement of the infantry. This task organization poses the most difficulty in maneuvering the MGS with the dismounted infantry. However, it provides greater flexibility in supporting the infantry during the close fight.

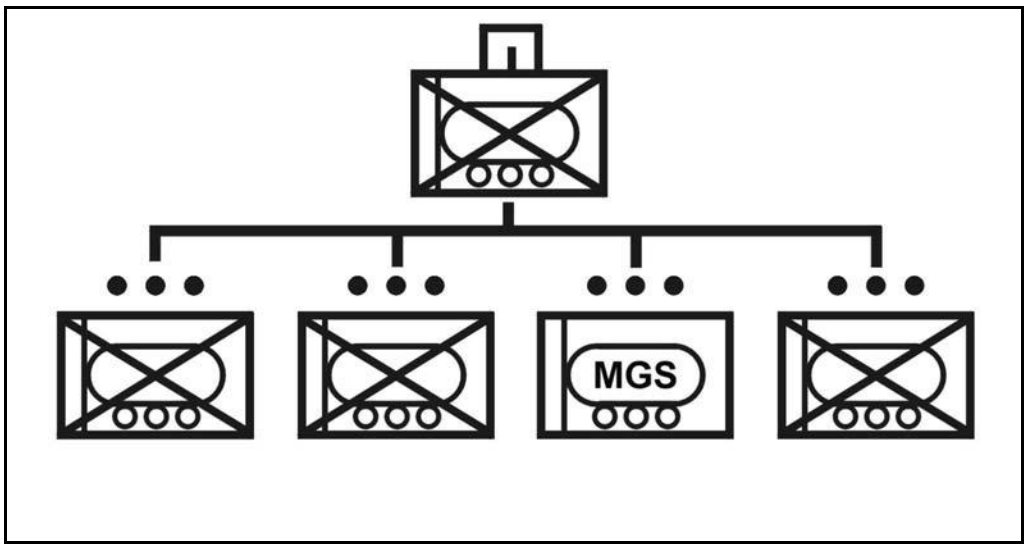


Figure 6-2. MGS platoon under company control.

(2) ***MGS Platoon(-) under Company Control and an MGS Vehicle under Infantry Platoon Control.*** The MGS platoon detaches one vehicle to infantry platoon control. With this technique (Figure 6-3), the selected maneuver infantry platoon has an MGS vehicle available to support the close fight, and the company commander has an MGS platoon (-) to deploy at the critical place and time of his choosing. This task organization still allows support to the infantry close fight while keeping additional support options for the company commander to employ. The disadvantages to this technique are that an infantry platoon leader, rather than the MGS platoon leader, maneuvers MGS vehicles, and the number of MGS vehicles directly available to the company commander is reduced.

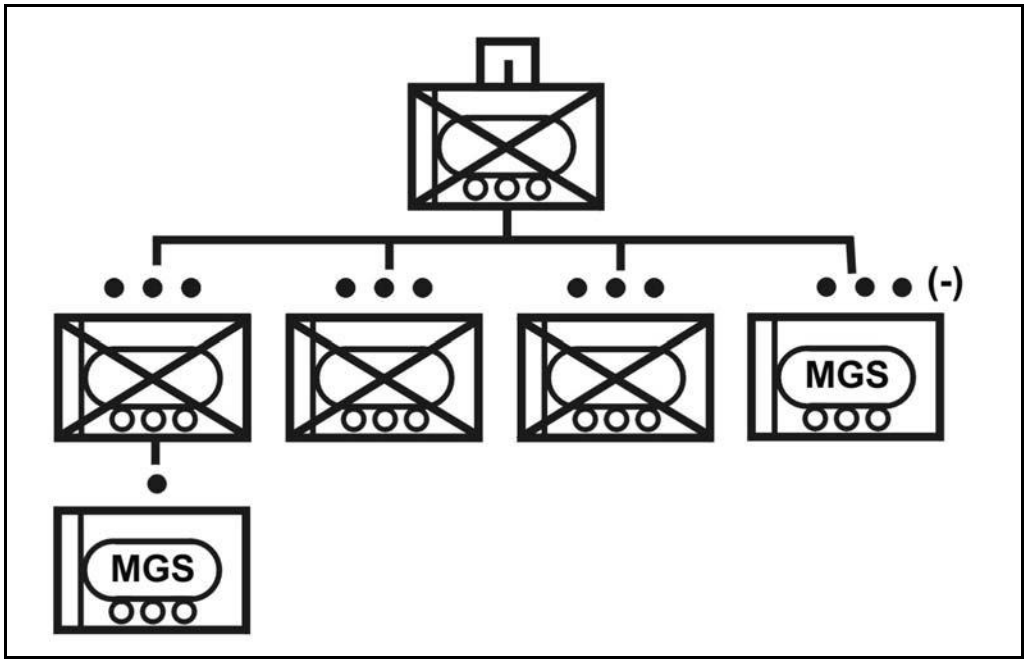


Figure 6-3. MGS platoon(-) under company and an MGS vehicle under infantry platoon control.

(3) ***Individual MGS Vehicles under Infantry Platoon Control.*** In this technique (Figure 6-4, page 6-6), each one of the MGS vehicles is task-organized to an infantry platoon. The purpose of this type of task organization is to provide all the infantry platoons with increased direct fire for suppression and breaching, specifically in an urban area. Leaders must ensure that the infantry platoon secures the MGS vehicle at all times.

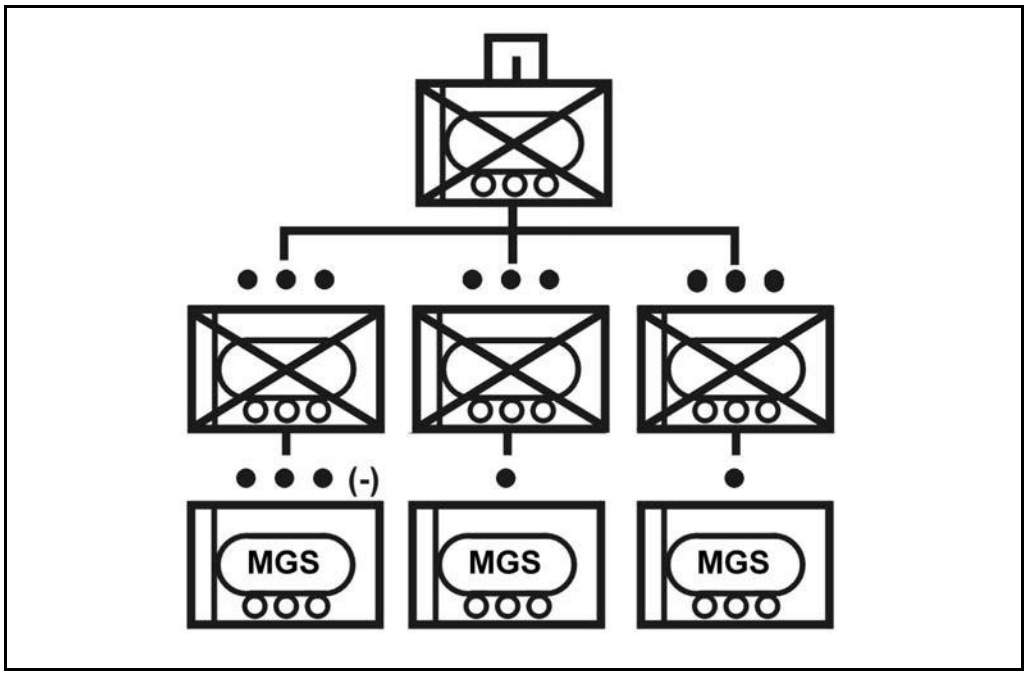


Figure 6-4. Individual MGS vehicles under infantry platoon control.

(4) ***Selection of a Technique.*** None of the techniques described above is inherently better than the others. The task organization has to be tailored to accomplish the mission. Regardless of the technique selected, the following guidelines apply:

- Single MGSs may operate in support of infantry; however, it is preferable for MGSs to support each other.
- If using MGS vehicles or ICVs to shield squads and teams moving from building to building as part of the maneuver plan, the leader of the forward element needs to control the MGS vehicles.
- If the SBCT infantry company commander controls the MGS, he needs to move forward to a position where he can effectively maneuver the MGS in support of the infantry.
- The task organization should support the span of control. If the company commander controls the MGS platoon, then he does not task-organize them to the infantry platoons.
- MGSs need infantry support when the two elements are working together. Do not leave vehicles (ICVs or MGSs) alone; they are not prepared to provide local security during the operation. MGS vehicles are extremely vulnerable to dismounted attack when operating in an urban environment.

c. **Mutual Support.** Infantry ICV and MGS teams work together to bring the maximum combat power to bear on the enemy. The infantry provides the eyes and ears of the team, locating and identifying targets for the MGSs or ICVs to engage. Infantry and ICVs move along covered and concealed routes to assault enemy elements fixed or suppressed by MGS fire. Squads provide protection for the MGS against attack by enemy infantry. Meanwhile, an MGS provides heavy, continuous supporting fires against enemy strongpoints.

d. **Movement.** The dismounted infantry normally leads SBCT infantry company movement through built-up areas. The MGS vehicles and ICVs follow and provide close overwatch. If the infantry discovers an enemy position or encounters resistance, the MGS responds immediately with supporting fire to fix the enemy in place or suppress him and allow the infantry to develop the situation. After sufficient time to develop the situation or conduct short-range reconnaissance, the infantry squad leader directs the MGS to move, if necessary, and identifies specific targets for the MGS to engage.

e. **Coordination.** Coordination between MGSs and infantry leaders must be close and continuous. The MGS vehicle commander may need to dismount and move, accompanied by the infantry squad leader, to a position where he can see the route or target better. Everyone must understand the signals for initiating, shifting, or lifting fires. One of the greatest barriers to coordination and command and control in urban combat is the intense noise. Simple, nonverbal signals should back up verbal commands.

f. **Communications.** The MGS platoon leader and platoon sergeant must maintain communications with the SBCT infantry company commander. Individual MGS vehicles and infantrymen communicate with one another using one or more of the following techniques:

(1) ***Visual Signals.*** Visual signals, either prescribed by SOP or coordinated during linkup, can facilitate some simple communications.

(2) ***External Phone.*** All MGS vehicles have external phones that aid in the communication between the MGS crew and the infantry.

(3) ***FM Radios.*** FM radios provide a reliable means of communications between infantry and supporting vehicle commanders. These radios allow the infantry to use terrain more effectively in providing close-in protection for the MGS; infantrymen can watch for enemy elements while limiting exposure to enemy fires directed against the MGS. Signal operating instruction (SOI) information can be used between the MGS platoons and the company headquarters or infantry platoons. This is a fast and reliable method of communications that does not require additional assets.

NOTE: The SBCT infantry company commander relies on the radio to help control the battle. It is essential for platoon leaders and RATELOs to be well trained in sending reports. Constant reporting from the subordinate elements to the commander is critical for mission success.

g. **Smoke.** The MGS vehicle's on-board smoke generation system and its smoke grenade projectors may be used both to protect the MGS from enemy observation and to provide concealment for the infantry forces as they either move across open areas or recover wounded personnel. The use of smoke must be carefully coordinated. Although the MGS vehicles' sights can see through most smoke, infantrymen are at a significant disadvantage when enveloped in dense smoke clouds. The smoke grenade launchers on the MGS provide excellent, rapidly developed local smoke clouds, but the grenades produce burning fragments that are hazardous to infantrymen near the MGS and can ignite dangerous fires in urban areas.

h. **Heavy Direct Fire Support.** MGS vehicles and ICVs are valuable tools for helping assaulting forces isolate the objective area and seize a foothold. As the infantry then moves to clear the position and expand the foothold, the MGSs remain in their initial

support-by-fire positions. When possible, MGSs should move to subsequent positions where their fires can prevent enemy reinforcement and engage enemy forces withdrawing from the objective. At this time, the MGS crew must be very alert. Because of the nonlinear nature of urban battles, enemy forces may move to the rear or flanks of the now-isolated MGS vehicles and destroy them. If a small element of infantry cannot be spared to support the MGS, then vehicles (MGS or ICV) should move to positions of cover and mutual support. Crews should be alert, especially for enemy infantry approaching from above, from the rear, or from the flanks.

i. **Other Considerations.** The following considerations also apply when operating in an urban environment:

(1) In planning, pay close attention to available terrain that will support MGS and ICV cross-country movement. While the pace may be slower, cross-country movement may significantly enhance security.

(2) Involve the MGS platoon leader and PSG in the mission analysis. Their expertise hastens the understanding of what MGS vehicles can and cannot do and aids the SBCT infantry company commander in making the best MGS employment decision.

(3) MGSs and ICVs can carry ammunition, water, and other supplies to support the urban fight.

(4) SBCT infantry company commanders must specifically allocate time in the planning process for precombat inspections (PCIs) for the vehicles.

(5) Conduct a combined-arms rehearsal at the level where the vehicles are task-organized. Try to replicate conditions for mission execution during rehearsals, such as day, limited visibility, civilians on the battlefield, host nation support, and ROE. Include the following:

- Graphic and fire control measures.
- Direct fire plans.
- Communications.
- Breach drills.
- Techniques for using vehicles as infantry shields.

(6) The following measures minimize casualties when moving outside or between buildings:

(a) Cover all possible threat locations with either observation or fire.

(b) For those areas not possible to cover with observation or fire, use smoke to set a screen to block enemy observation of friendly movement.

(c) Move MGS vehicles forward to support infantry movement. Position the MGS before the infantry begins moving, whether the MGSs are supporting by fire, being used as shields, or both.

(d) Preplan positions if possible, but devise a marking system and communication signals to designate situation-dependent positions to help maintain momentum. (For example, “The VS-17 panel from Building 2 means move to support by fire 3.”)

(e) When using vehicles as a shield for infantry, move the vehicles as close to the start point as possible to allow the infantry freedom of movement when exiting the building.

(f) Vehicles need to move at the infantry’s rate of movement.

(g) When the distance between buildings is short, position vehicles to protect the infantry from enemy small-arms fire.

(7) Use simple, clearly understood graphic control measures. The following are particularly useful for operations in urban combat (Figure 6-5):

- Phase lines.
- Number and lettering systems for buildings.
- Tentative support-by-fire positions.
- No-fire areas.

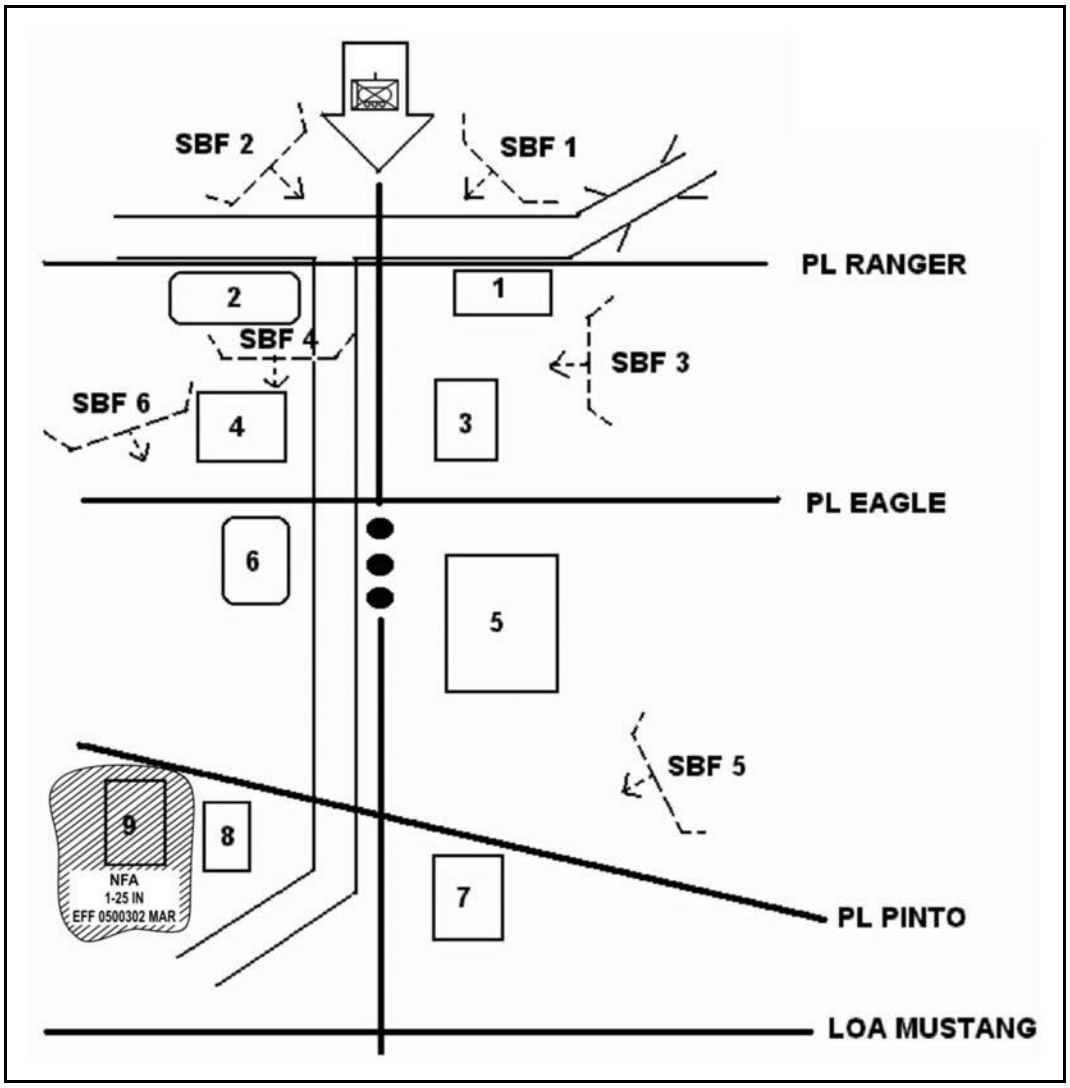


Figure 6-5. Graphic control measures.

Section II. OFFENSE

Offensive operations in urban areas are based on offensive doctrine modified to conform to the urban terrain. Urban combat imposes a number of demands that are different from ordinary field conditions, such as problems with troop requirements, maneuver, and use of equipment. As with all offensive operations, the company commander must retain his ability to fix and maneuver against enemy positions.

6-3. GENERAL OFFENSIVE CONSIDERATIONS

Combat operations in a built-up area have a slower pace and tempo than operations in open terrain. Unlike in open terrain, SBCT infantry companies cannot maneuver platoons quickly. Due to the close environment and the restricted ability to use all available weapons systems, synchronization of maneuver and combat support assets is one of the SBCT infantry company commander's main challenges. Missions in UO are more methodical. Normally, the infantry company conducts missions as part of a battalion operation, but the SBCT infantry company must be prepared to operate independently. The company must also be prepared to conduct different but mutually supporting missions simultaneously, such as establish a checkpoint and clear a block at the same time.

a. **Troop Requirements.** Due to the nature of combat in built-up areas, more troops are normally needed than in other combat situations. This is due to the number of tasks required: clear buildings, provide security, control civilians, and evacuate casualties (the probability of casualties is greater in UO).

(1) Because of the need to clear buildings and provide security, the number of troops required to accomplish an offensive mission is much greater. To prevent enemy forces from repositioning or counterattacking friendly forces, some forces must remain in a building once it is cleared.

(2) Commanders must also consider soldier fatigue. Room clearing techniques are physically demanding and quickly tire a force. Commanders must plan for the relief or rotation of their forces before they reach the point of exhaustion.

(3) Additional forces may be needed to control civilians in the built-up area. These forces must protect civilians, provide first aid, and prevent them from interfering with the tactical plan.

(4) Fighting in a built-up area normally results in a greater number of friendly casualties. The ability to see the enemy is fleeting and confined to very short ranges compared to combat in open terrain. Fratricide can become a serious problem and must be addressed in detail by the commander. Plan for CASEVAC and instruct subordinate units to conduct this task.

b. **Maneuver.** Unlike in open terrain, the complex nature of the urban environment makes it difficult for commanders to maneuver their SBCT infantry company and its attachments quickly. Clearing buildings and looking for antiarmor ambushes, snipers, and booby traps degrade the ability of the company to maneuver platoons and squads. Due to the dense environment and its effects on weapons systems, the synchronization of combat power is one of the commander's main challenges. Offensive operations must be planned in detail, with subordinate elements given specific instructions and on-order missions.

c. **Limitations.** SBCT infantry company commanders attacking a built-up area must recognize some important limitations in the use of available assets:

(1) Normally, the use of indirect fires, especially field artillery, is much more restricted in built-up areas than in open terrain. Leaders must consider the effects of indirect fire on the urban area and civilians, especially when extremely restrictive ROE are in effect. When indirect fires are authorized, they must be fired in greater mass to achieve the desired effect.

(2) The rubbling caused by massive indirect fires adversely affects a unit's ability to maneuver during the attack.

(3) The commander and leaders must consider the effect that city lights, fires, and background illumination have on night vision devices. These elements may limit the effectiveness of NVDs and make thermal imagery identification difficult.

(4) Communications equipment may not function to its maximum effectiveness because of the density in building construction. Therefore, intelligent use of graphic control measures and an understanding of the SBCT commander's intent (two levels up) become more important to mission accomplishment.

6-4. METT-TC FACTORS

The SBCT infantry company commander's analysis of the factors of METT-TC is critical for successful planning and execution during UO.

a. **Mission.** The SBCT infantry company commander must receive, analyze, and understand the mission before he begins planning. He and his troops must clearly understand the conditions of the operation--either precision or high intensity--and the ROE. The company commander may be required to conduct different missions simultaneously.

(1) ***Common Missions.*** SBCT infantry companies should expect to receive similar types of offensive missions in urban terrain that they receive in other terrain. The following are common company missions in urban combat:

(a) *Isolation of an Urban Objective*. The SBCT infantry company normally conducts this mission as part of an SBCT battalion. The SBCT infantry company deploys its platoons to secure the area around or near a building, block, or village in order to kill or capture any withdrawing enemy forces and prevent reinforcement of or a counterattack against the objective. Engineers or other CS and CSS assets may reinforce the company based on the ROE and factors of METT-TC. In view of the fact that many casualties may be inflicted on friendly units moving between buildings or down streets, this mission takes on significant importance.

(b) *Assault of a Building*. SBCT infantry companies normally conduct this mission as part of an SBCT battalion operation when the building is too large for a platoon to assault and clear and the enemy defending the building requires a force larger than a platoon. The company must enter the building, gain a foothold, and clear the building. The SBCT battalion commander normally directs another SBCT infantry company (or other companies) to isolate the building. Engineers or other CS and CSS assets usually reinforce the SBCT infantry company consistent with the ROE and the factors of METT-TC.

(c) *Attack of a Block or Group of Buildings*. SBCT infantry companies may attack a block or group of buildings. Again, the company normally conducts this mission as part of a battalion operation. If the company attacks a block as part of a battalion operation, it may be the battalion's main or supporting effort. Another friendly unit may isolate the objective, or the company may find that it must isolate the objective area in whole or in part. If an infantry company receives the mission to assault a block independently, then the company must isolate the objective area by itself.

(d) *Movement to Contact*. SBCT infantry companies in UO may move through urban terrain in order to gain and maintain contact with the enemy. Because the urban environment makes movement very challenging and the buildings reduce the capabilities of FBCB2, the company must make extra efforts to gain situational understanding (SU).

This mission typically includes movement (often rapid) through an urban area to develop the situation by seizing or clearing blocks and buildings.

(e) *Hasty Attack of a Village*. SBCT infantry companies may conduct a hasty attack of a village either independently or as part of an SBCT infantry battalion operation. The purpose of this mission is normally to reduce enemy control of a position and facilitate movement for other operations.

(f) *Seizure of Key Urban Terrain*. SBCT infantry companies may seize key terrain in order to provide an advantage to friendly forces. Key terrain may be overpasses, building complexes, traffic circles, surrounding natural terrain or bridges, and so forth. The SBCT infantry company usually conducts this mission independently to facilitate movement or other operations.

(g) *Raids*. SBCT infantry companies may perform raids on urban terrain, which they plan similar to raids on other terrain. Objectives may be located in built-up areas, and the company may have to move through urban and other terrain in order to arrive at the objective. The company normally conducts this mission independently, but it may also conduct a raid in support of a battalion area raid (see Chapter 4).

(2) ***Analysis of Mission.*** When conducting his analysis, the SBCT infantry company commander must consider his battalion commander's intent and the end state of the operation. For example, the company commander must determine if clearance means every building, block by block (systematic clearance), or if the seizure of key terrain requires clearing only along the axis of advance (selective clearance). The company commander must also consider how and where the company must be postured in order to conduct follow-on missions and to facilitate the battalion and brigade missions. This influences the missions he gives to his platoon and attached element leaders.

(a) When the company is involved in clearing operations, bypassing buildings increases the risk of attack from the rear or flank unless planned support isolates and suppresses those buildings. Normally, the clearing platoons must not only enter, search, and clear each building in the company's zone of action but also leave security behind to prevent reoccupation of buildings. This may not be feasible due to the nature of the mission, but if it is part of the plan, it should be made clear to the platoon leaders when orders are issued.

(b) The battle can transition quickly from precision to high intensity conditions, a transition that may be caused by enemy actions. An assault against a deliberate, prepared defense with obstacles becomes high intensity. Indications of an enemy-forced change of ROE (and a change from precision conditions to high intensity) include--

- The requirement to breach multiple obstacles.
- The use of booby traps by the enemy.
- The requirement to use repetitive explosive breaching to enter a building.
- Rooms that are so well prepared or barricaded that normal movement and clearing techniques cannot be employed.

(3) ***Movement.*** Moving from building to building or between buildings presents a problem to platoons. Historical examples, recent operations in Somalia, and the Russian experience in Grozny have shown that many casualties occur during movement from building to building and down streets. Therefore, SBCT infantry company commanders should plan operations in a manner that allows subordinate elements to take maximum advantage of covered and concealed routes within the urban area. Additionally, company

commanders must carefully analyze which buildings must be isolated, suppressed, and obscured, consistent with the ROE. They may use the MGS platoon and, if attached to mechanized units, any available tanks and Bradley fighting vehicles (BFVs) as shields for maneuvering platoons.

(4) ***Coordination of Fire Support.*** Most fire support coordination occurs at battalion level to take into account the ROE. Prior coordination determines the techniques and procedures to use for communicating, identifying targets, and shifting fires. The FIST chief should be extensively involved in this portion of the planning process. The company must plan fires consistent with the ROE, giving extra consideration to civilians, houses of worship, medical centers, schools, public services, and historical monuments. (See Chapter 10 for further details about combat support assets.)

b. **Enemy.** Key factors that affect the SBCT infantry company commander's analysis are the type of enemy force that is expected in the urban area, the enemy's probable courses of action, and the ROE. More restrictive ROE work to a defender's advantage; conversely, less restrictive ROE work to an attacker's advantage. The type of threat is one factor used to determine how the company should be task organized and how combat power should be synchronized to accomplish the mission. Additionally, the company commander must determine if there are any asymmetrical threats that may affect the company's mission. For example, if the company has the mission to safeguard (seize) a water treatment facility that is determined to be key terrain, the commander needs to consider possible threats to the facility that may not be direct force-on-force actions.

(1) ***Conventional Forces.*** Many third world countries have adopted techniques of urban combat from either the United States or the Commonwealth of Independent States. Therefore, a future threat may consider the motorized or mechanized rifle battalion the most effective unit for urban combat because of its inherent mobility, armor protection, and ability to adapt buildings and other structures for defense quickly.

(a) In countries that have forces equipped and trained as in the former Warsaw Pact, there are standard urban defenses:

- Threat defenses are organized into two echelons to provide greater depth and reserves.
- Company strongpoints are prepared and form the basis for the battalion defensive position.
- The reserve is located in a separate strongpoint.
- Ambush locations are established in the gaps of the strongpoints, and dummy strongpoints are constructed to deceive the attacker.
- Positions for securing and defending the entrances to and exits from underground structures and routes are established.
- Security positions are prepared forward of first echelon defensive positions.
- A motorized or mechanized rifle company may defend several buildings or a single large building with mutually supporting fires.
- Each platoon defends one or two buildings, or one or two floors of a single building.

(b) In many third world countries, the forces are predominantly light with some outdated armored vehicles. Some countries may not have actual armed forces but have some form of armed militia(s). These forces normally do not fight a defense in the former

Warsaw Pact style, but rather offer uncoordinated resistance, often extremely intense, as experienced in Somalia.

(2) ***Unconventional (Asymmetric) Forces.*** Enemy analysis is similar to that for low intensity conflict during urban counterinsurgency, counterguerrilla, and counterterrorist operations.

c. **Terrain.** Offensive operations must be tailored to the urban environment based on a detailed analysis of each urban terrain setting, its types of built-up areas, and existing structural forms. Commanders and subordinate leaders must incorporate the following special planning considerations for an urban environment when conducting an offensive operation:

- Military maps that may not provide enough detail for urban terrain analysis nor reflect the underground sewer system, subways, underground water system, mass transit routes, and utility facilities. (When available, the commander should utilize building or city plans, engineering prints, aerial photographs, tourist maps, or other aids that may assist him in his analysis of the terrain.)
- Natural terrain surrounding the built-up area.
- Key and decisive terrain (stadiums, parks, sports fields, school playgrounds, public buildings, media facilities, and industrial facilities).
- Construction and structural composition of buildings.
- Confined spaces that limit observation, fields of fire, and maneuver and prevent the concentration of fires at critical points.
- Covered and concealed routes to and within the built-up area.
- Limited ability to employ maximum combat power due to the need to minimize damage and rubbling effects (based on ROE).
- Problems with conducting effective reconnaissance during conventional operations. Reconnaissance by force is the most effective reconnaissance means, ROE permitting. This method involves probing a defense with successively larger units until enemy positions are disclosed and can be successfully attacked. During unconventional (asymmetric) operations or operations under restrictive ROE, the opposite is true. Reconnaissance and security are more easily accomplished by both sides and are more difficult to prevent.
- ROE that limit the use of firepower.
- Significant numbers of civilians who may have to be evacuated, some forcibly. Civilians may hinder operations on purpose or merely by their presence.

d. **Troops Available.** An SBCT infantry company normally participates in an attack as part of an attacking SBCT battalion. In this case, the company may have to isolate the objective or seize a foothold. If the objective is a smaller built-up area, a company may be required to accomplish the entire mission independently, assigning required tasks to its platoons or squads. In either case, the maneuver platoons accomplish these tasks. The company mortar section normally supports the assault by providing indirect fire support. (See Chapter 10 for detailed discussion of assets the company commander may have available.)

(1) ***MGS Vehicles.*** MGS vehicles may support by fire when lead units are seizing a foothold. During the attack of a built-up area, MGS vehicles overwatch the infantry's initial assault until an entry into the area has been secured. ICVs or MGS vehicles need the support of infantry in order to suppress enemy strongpoints and ATGMs while they move into overwatch positions. The commander must employ MGS vehicles to take advantage of the range of their main armament and their armored protection. He should also consider bringing the vehicles forward to secure a foothold or breach exterior walls for the infantry. He bases this decision on the ROE and the effectiveness of enemy antiarmor fires.

(2) ***Direct Fire Artillery.*** If available, towed 155-mm howitzers can use direct fire to destroy bunkers, heavy fortifications, or enemy positions in reinforced concrete buildings (Figure 6-6). The towed 155-mm howitzer may also clear or create avenues of approach. Whenever artillery is used in the direct fire role, it must be close to the infantry providing security against enemy ground attack. Prior coordination is necessary so the bulk of the field artillery unit's shells are HE.

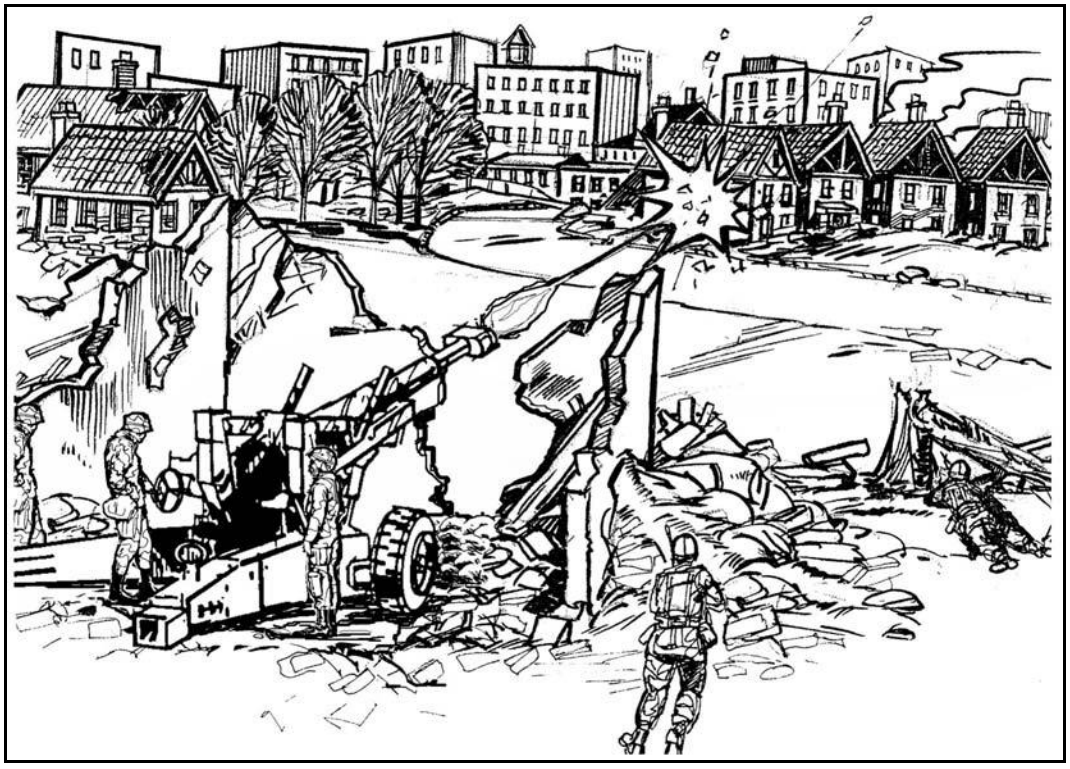


Figure 6-6. Artillery in direct fire role.

e. **Time.** Offensive operations in built-up areas have a slower pace and operational tempo. Consider the following issues when analyzing time available for an attack in urban terrain:

(1) Clearing buildings, blocks, or axes of advance in the dense environment of urban terrain requires more time than for operations in more open terrain.

(2) Troops tire more quickly because of stress and the additional physical exertion related to clearing urban terrain. Plan additional time to recover from fatigue.

(3) Allow additional time for thorough reconnaissance and rehearsals in order to prevent excessive casualties and fratricide.

6-5. BATTLE COMMAND

Units in built-up areas frequently fight separated and isolated from one another. Planning is centralized, but execution is decentralized. Therefore, it is critical that the commander clearly describe his visualization of the terrain and the enemy to his platoon and squad leaders. In all situations, leaders should position themselves well forward so that they can control the action and provide assistance to subordinate leaders. In urban terrain, this is even more critical due to obstacles, poor visibility, difficulty in communications, and the intensity of urban combat. SBCT infantry commanders must demand timely, accurate, and complete reporting and must plan for effective command and control to lessen the effects of the urban battlefield. The FBCB2 capability is not 100 percent; the leader on the ground reporting the situation as he sees it produces SU.

a. **Command.** Subordinate units require mission-type orders that are restrictive in nature. SBCT infantry commanders should use detailed control measures to facilitate decentralized execution. Increased difficulties in command, control, and communications from higher headquarters demand increased responsibility and initiative from subordinate leaders. Graphic control measures common to other tactical environments are also used in combat in built-up areas. These and other control measures ensure coordination throughout the chain of command.

b. **Control.** Thorough rehearsals and detailed briefbacks also enhance control. It is important that subordinate leaders clearly understand the commander's intent (two levels up) and desired mission end state in order to facilitate control. SBCT infantry company commanders should consider using subordinate leaders to control certain portions of the fight when the commander's attention needs to be focused elsewhere (for example, using the XO to control the support element while the commander controls the assault elements).

(1) ***Establish Communications.*** In built-up areas, radio communications are often less effective than field telephones and messengers. Communications equipment may not function properly because of the materials used in the construction of buildings and the environment. Wire laid at street level is easily damaged by rubble and vehicle traffic. Pyrotechnic signals are hard to see because of buildings and smoke. The high noise level of battles within and around buildings makes sound signals and voice alerts difficult to hear, and voice communication can also signal the unit's intention and location to the enemy. Line-of-sight (LOS) limitations affect both visual and radio communications. Therefore, the time needed to establish an effective communications system might be greater in an urban environment. Leaders should consider these effects when they allocate time to establish communications. Since the effectiveness of normally dependable communications may be uncertain in UO, units may fight without continuous communications or the use of the tactical internet. Unit SOPs become significantly more important in urban terrain.

(2) ***Graphic Control Measures.*** The use of graphic control measures to augment FBCB2 and understanding of the SBCT commander's intent two levels up by all leaders becomes even more important to successful mission accomplishment in an urban

environment. Leaders can use phase lines to report progress or to control the advance of attacking units and limits of advance (LOAs) to prevent fratricide.

(a) When attacking to seize a foothold, the SBCT infantry company normally assigns a building or a few small buildings as a platoon's first objective. When an objective extends to a street, only the near side of the street is included in the objective area. The company's final objective may be buildings at the far edge of the built-up area or key terrain on the far side. Key buildings or groups of buildings may also be assigned as intermediate objectives. To simplify assigning objectives and reporting, buildings along the route of attack should be identified by SOP. An example using numbers is shown in Figure 6-7.

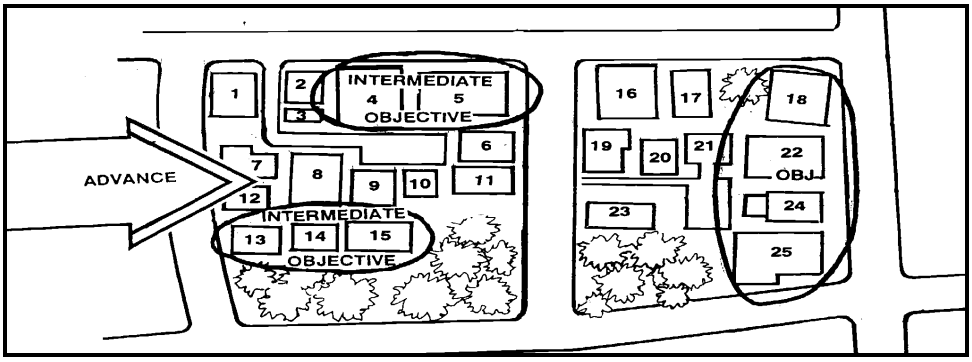


Figure 6-7. Example of a numbering system.

(b) When the company is involved in clearing a zone, bypassing buildings increases the risk of attack from the rear or flank. Thus, the clearing unit must enter, search, and clear each building in its zone of action or isolate it by fire or other means. A single building may be an objective for a rifle squad or, if the building is large, for a rifle platoon or even a company. When the SBCT infantry commander's concept is based on speed or when conducting a hasty attack, a company may be directed not to clear throughout its entire zone.

(c) Phase lines can be used to report progress or to control the advance of attacking units (Figure 6-8, page 6-18). Principal streets, rivers, and railroad lines are suitable phase lines, which should be on the near side of the street or open area. In systematic clearing, a company may have the mission to clear its zone of action up to a phase line. In that case, the company commander chooses his own objectives when assigning missions to his subordinate units.

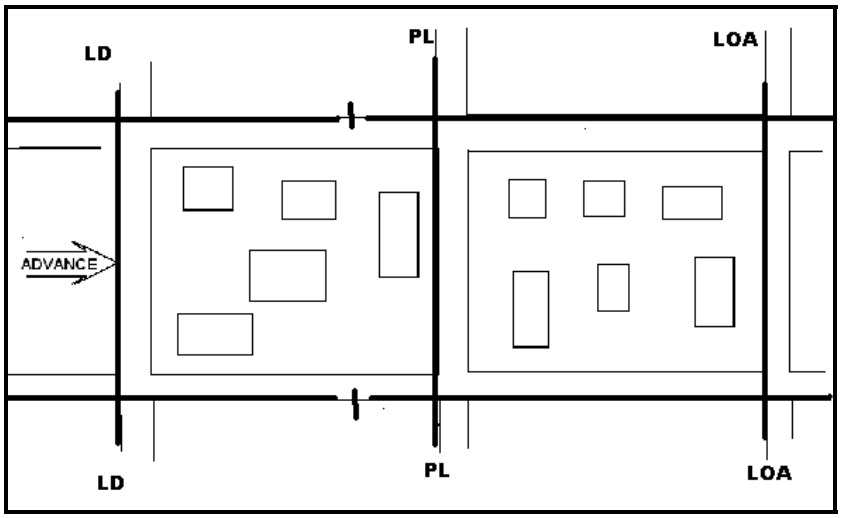


Figure 6-8. Zones, boundaries, and phase lines.

(d) Set company boundaries within blocks so that a street is included in a company zone. Place boundaries to ensure both sides of a street are in the zone of one unit.

(e) Plan checkpoints and contact points at street corners, buildings, railway crossings, bridges, or any other easily identifiable urban feature.

(f) Forward units may occupy an attack position for last-minute preparation and coordination. The attack position is often behind or inside the last covered and concealed position, such as a large building, before crossing the LD. The LD should be the near side of a street or rail line.

(g) A unit's assigned frontage for the attack of a built-up area depends on the size of buildings and the resistance anticipated. Based on city blocks averaging 175 meters in width, a company normally attacks on a one- to two-block front; a battalion attacks on a two- to four-block front.

(h) Conduct the attack when visibility is poor. Troops should exploit poor visibility to cross open areas, to gain access to rooftops, to infiltrate enemy areas, and to seize a foothold. If the attack must be made when visibility is good, units should use hydrogen chloride (HC) smoke or other obscurants to conceal movement.

6-6. TASK ORGANIZATION

The SBCT infantry company commander normally task-organizes his company into three elements: an assault force, a support force, and a reserve. The support force may be given a number of tasks to conduct on order or simultaneously. Specifically, the support force may support by fire, isolate the objective, or breach. The tactical situation dictates whether or not separate elements need to be task-organized in order to conduct these support missions. If available, engineers are usually task organized into the force performing a breach. The size and composition of the force are determined by METT-TC. If the company is part of an SBCT battalion operation, the company may have the mission to conduct one or more of the tasks mentioned above. If conducting an urban attack independently, the SBCT infantry company must perform both assault and support tasks.

a. **Assault Force.** The purpose of the assault force is to destroy the enemy, capture the enemy, or force the withdrawal of the enemy from any urban objective. The assault force of an SBCT infantry company may consist of two or more infantry platoons usually reinforced with engineers and MGS vehicles. Building and room clearing are normally conducted at platoon and squad levels. The assault force may also conduct a breach.

b. **Support Force.** The purpose of the support force is to provide any support that may be required by the assault force. The support force at the SBCT infantry company level normally consists of the company's organic assets (infantry platoons, MGS platoon, mortars, and antitank weapons), its attachments, and units that are under the operational control (OPCON) of the company commander. This assistance includes, but is not limited to--

- Suppressing or obscuring the enemy within the objective building(s) and adjacent structures.
- Isolating the objective building(s) to prevent enemy withdrawal, reinforcement, or counterattack.
- Breaching walls en route to and in the objective structure.
- Destroying or suppressing enemy positions with direct fire weapons.
- Securing cleared portions of the objective.
- Providing resupply of ammunition, explosives, and personnel.
- Evacuating casualties, EPWs, and civilians.

c. **Reserves.** SBCT infantry companies fighting in urban terrain should designate a reserve. The reserve should be the same size and composition as the assault force. (As a minimum, the reserve should have the same capabilities as the assault force to achieve the desired action at the desired point.) The company reserve should be mobile and prepared for commitment. Because of the available cover in built-up areas, the reserve can stay close to forward units. The reserve follows within the same block so that it can immediately influence the attack. Platoon(s) may be detached from the company to form a battalion reserve. A unit with a reserve mission may be called upon to perform one or more of the following tasks:

- Assume the mission of the assault force.
- Move behind the assault force to provide security in cleared buildings to allow the assault force to continue to move.
- Attack from another direction.
- Exploit an enemy weakness or friendly success.
- Clear bypassed enemy positions.
- Secure the rear or a flank.
- Maintain contact with adjacent units.
- Support or counterattack by fire.

d. **Breaching Element.** At the SBCT infantry company level, the assault or support force may conduct breaching. However, a separate breaching force may be created, or platoons may be given this mission and task-organized accordingly. The purpose of breaching is to provide the assault force with access to an urban objective, using explosive, ballistic, or mechanical methods. Explosive breaching includes using nonelectrical demolition systems; ballistic breaching includes using direct fire weapons; and mechanical breaching includes the use of crowbars, axes, saws, hooligan's tools, and sledgehammers. Attached engineers or members of the company who have had additional

training in explosive, ballistic, and mechanical breaching techniques may conduct the breach.

6-7. MOVEMENT

When moving in built-up areas (BUAs), an SBCT infantry company follows the same fundamentals and principles and uses the same movement techniques as in other areas. Enemy actions against the company might consist of ambushes on the street, enfilade fire down the streets, sniper fire, fire from rooftops and from within buildings, or artillery or mortar fire. The company can minimize the effects of enemy defensive fires during movement by--

- Using covered routes (moving through buildings).
- Moving only after defensive fires have been suppressed or obscured.
- Moving at night or during other periods of limited visibility.
- Selecting routes that will not mask friendly suppressive fires.
- Crossing open areas (streets and spaces between buildings) quickly under the concealment of smoke with suppression provided by support forces.
- Moving on rooftops that are not covered by enemy direct fires.
- Using the concealment provided by shaded areas.
- Using cover provided by attached armored vehicles.
- Creating deceptions.
- Laying suppressive fires on known or suspected enemy positions, as allowed by ROE.

a. **Movement Down Streets.** Should the situation allow or require movement down a street, platoons move in file along one or both sides of the street with overwatching fires from supporting weapons. Individual soldiers are dispersed, move quickly, and are detailed to observe and cover a certain area such as second-floor windows on the opposite side of the street. As in all urban situations, platoons must search for defenders in 360 degrees and in all three dimensions (front, flanks, rear, upper stories, basements, and rooftops).

b. **Speed of Movement.** The speed of movement depends on the type of operation, terrain, and degree of enemy resistance. As in any other terrain, the faster the speed of movement, the lesser the degree of security; the slower the speed, the more secure the movement. In lightly defended areas, the mission or the requirement for speed may dictate moving through the streets and alleys without clearing all buildings in order to reach and secure key terrain. More importantly, the company commander must establish and enforce the tempo of the operation.

c. **Danger Areas.** As in any other type of terrain, the company should avoid danger areas if possible. Unlike in other terrain, almost everything is a danger area in urban terrain. Types of urban danger areas include, but are not limited to--

- Open areas.
- Parking lots and garages.
- Intersections.
- Streets, alleys, and roadways.
- Traffic circles and cul-de-sacs.
- Bridges, overpasses, and underpasses.

- Subterranean areas.
- Rooftops.

6-8. DELIBERATE ATTACK

At the company level, a deliberate attack of an urban area usually involves the sequential execution of the tactical tasks below.

a. **Reconnoiter the Objective.** This method involves making a physical reconnaissance of the objective with company assets and those of higher headquarters, as the tactical situation permits. It also involves a map reconnaissance of the objective and all the terrain that affects the mission, to include the analysis of aerial imagery, photographs, or any other detailed information about the building or other urban terrain, for which the company is responsible. Additionally, any HUMINT collected by reconnaissance and surveillance units, such as the battalion reconnaissance platoon, snipers, and so forth, should be considered during the planning process.

b. **Move to the Objective.** This method may involve moving the company tactically through open and or urban terrain. Movement should be made as rapidly as possible without sacrificing security. Movement should be made along covered and concealed routes and can involve moving through buildings, down streets, subsurface areas, or a combination of all three. Urban movement must take into account the three-dimensional aspect of the urban area.

c. **Isolate the Objective.** Isolating the objective involves seizing terrain that dominates the area so that the enemy cannot supply, reinforce, or withdraw its defenders. It also includes selecting terrain that provides the ability to place suppressive fire on the objective. (This step may be taken at the same time as securing a foothold.) If isolating the objective is the first step, speed is necessary so that the defender has no time to react. Companies may be required to isolate an objective as part of a battalion operation or may be required to do so independently. Depending on the tactical situation, an infantry company may isolate an objective by infiltration and stealth.

d. **Secure a Foothold.** Securing a foothold involves seizing an intermediate objective that provides cover from enemy fire and a location for attacking troops to enter the urban area. The size of the foothold is METT-TC dependent and is usually a company intermediate objective. In some cases a large building may be assigned as a company intermediate objective (foothold). As the company attacks to gain a foothold, it should be supported by suppressive fire and smoke.

e. **Clear an Urban Area.** Before determining to what extent the urban area must be cleared, the factors of METT-TC must be considered. The ROE influence the tactics, techniques, and procedures (TTP) platoons and squads select as they move through the urban area and clear individual buildings and rooms.

(1) The commander may decide to clear only those parts necessary for the success of his mission if--

- An objective must be seized quickly.
- Enemy resistance is light or fragmented.
- The buildings in the area have large open areas between them. In this case, the commander would clear only those buildings along the approach to his objective or only those buildings necessary for security. (See Figure 6-9, page 6-22.)

(2) An infantry company may have a mission to systematically clear an area of all enemy. Through detailed analysis, the commander may anticipate that he will be opposed by a strong, organized resistance or will be in areas having strongly constructed buildings that are close together. Therefore, one or two platoons may attack on a narrow front against the enemy's weakest sector. They move slowly through the area, clearing systematically from room to room and building to building. The other platoon supports the clearing units and is prepared to assume their mission.

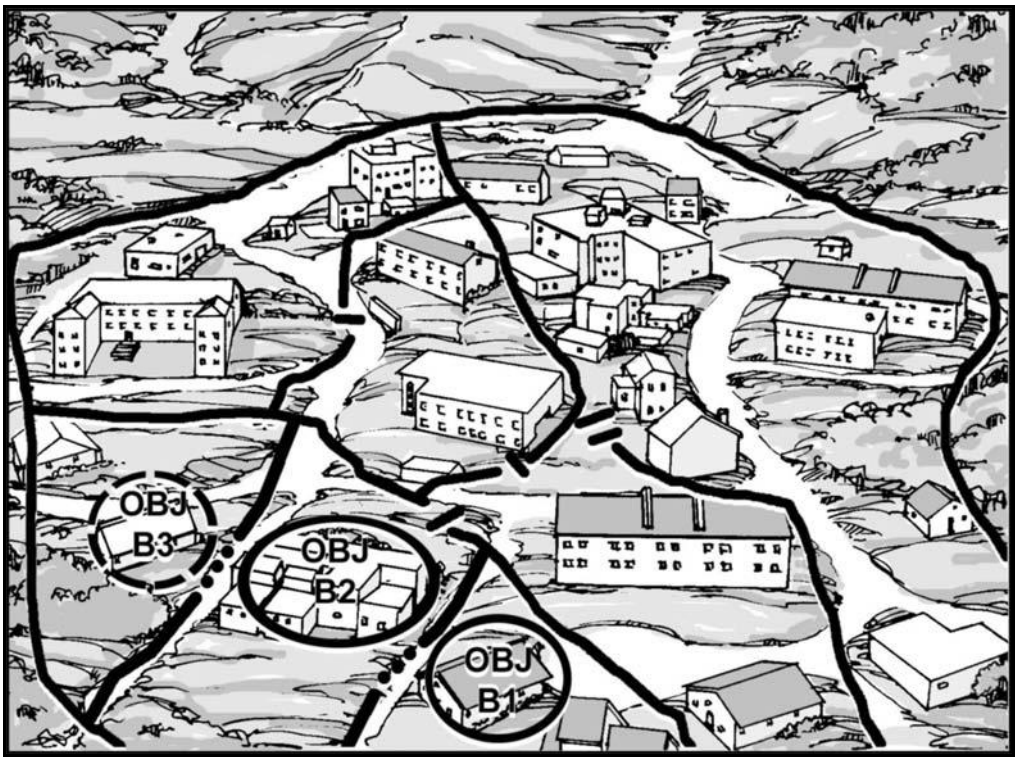


Figure 6-9. Clearing selected buildings within sector.

f. **Consolidate, Reorganize, and Prepare for Future Missions.** Consolidation occurs immediately after each action. Consolidation is security and allows the company to prepare for counterattack and to facilitate reorganization. It is extremely important in an urban environment that units consolidate and reorganize rapidly after each engagement. The assault force in a cleared building must be quick to consolidate in order to repel enemy counterattacks and to prevent the enemy from infiltrating back into the cleared building. After securing a floor, selected members of the assault force are assigned to cover potential enemy counterattack routes to the building. Priority must be given to securing the direction of attack first. Those soldiers alert the assault force and place a heavy volume of fire on enemy forces approaching the building. Reorganization occurs after consolidation. Reorganization actions prepare the unit to continue the mission; many actions occur at the same time.

(1) ***Consolidation Actions.*** Platoons assume hasty defensive positions after the objective has been seized or cleared. Based upon their specified and implied tasks, assaulting platoons should be prepared to assume an overwatch mission and support an assault on another building or another assault within the building. Commanders must

ensure that platoons guard enemy mouseholes between adjacent buildings, covered routes to the building, underground routes into the basement, and approaches over adjoining roofs.

(2) ***Reorganization Actions.*** After consolidation, the following actions are taken:

- Resupply and redistribute ammunition, equipment, and other necessary items.
- Mark the building to indicate to friendly forces that the building has been cleared.
- Move support or reserve elements into the objective, if tactically sound.
- Redistribute personnel and equipment on adjacent structures.
- Treat and evacuate wounded personnel.
- Treat and evacuate wounded EPW and process remainder of EPWs.
- Segregate and safeguard civilians.
- Re-establish the chain of command.
- Redistribute personnel on the objective to support the next phase or mission.

(3) ***Prepare for Future Missions.*** The company commander anticipates and prepares for future missions and prepares the company chain of command for transition to defensive and or stability and support missions.

6-9. ISOLATE AN URBAN OBJECTIVE

SBCT infantry companies must isolate urban objectives in order to prevent reinforcement of or counterattack against the objective and to kill or capture any withdrawing enemy forces. When planning the isolation, commanders must consider three-dimensional and in-depth isolation of the objective (front, flanks, rear, upper stories, basements, and rooftops). They should employ all available direct and indirect fire weapons, to include attack helicopters and CAS, consistent with the ROE. Isolating the objective is a key factor in facilitating the assault and preventing casualties. The company may perform this mission as the support element for a battalion operation, or it may assign the task to its own internal support element for a company attack. In certain situations, SBCT infantry companies may isolate an objective or an area for special operations forces. When possible, the company should isolate the objective using stealth and rapid movement in order to surprise the enemy. Depending on the tactical situation, infantry companies may use infiltration in order to isolate the objective. Likely tasks include, but are not limited to the following.

a. **Isolating the Objective (Battalion Attack).** An SBCT infantry company may isolate the objective as the support element for a battalion operation. When an infantry company has this mission, the objective is normally a larger structure, block, or group of buildings. The company commander task-organizes his platoons and assigns them support-by-fire positions based on the factors of METT-TC. In addition to isolating the objective, the company (support element) may have additional tasks to conduct on order or simultaneously. Examples of these additional tasks include providing the battalion reserve, assuming assault element missions, handling civilians and EPWs, and performing CASEVAC.

b. **Isolating the Objective (Company Attack).** When an SBCT infantry company conducts an attack, the task organization and tasks given to the company support element are determined by the factors of METT-TC. If the company conducts a company attack, the objective can be a building, block, a grouping of buildings, traffic circle, or village

(Figure 6-10). See Figure 6-11 for a technique of controlling direct fires during the assault.

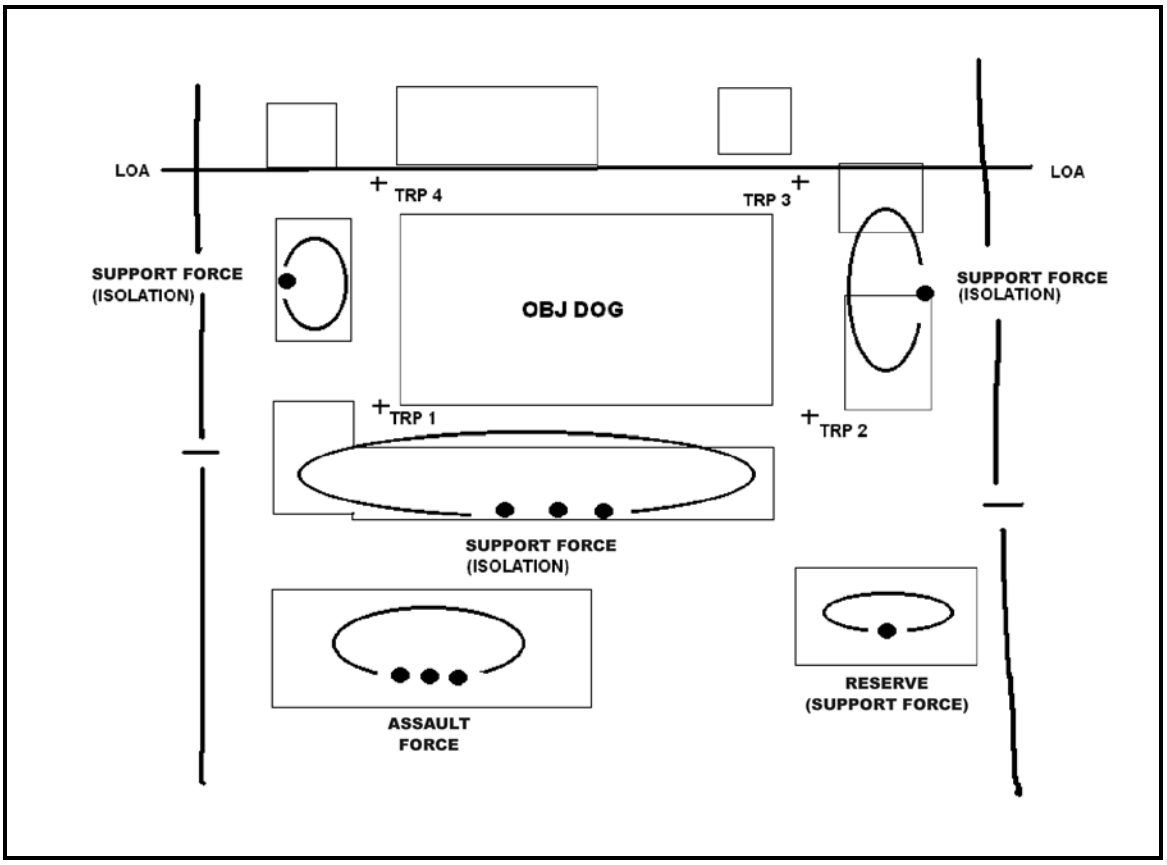


Figure 6-10. Isolating an urban objective.

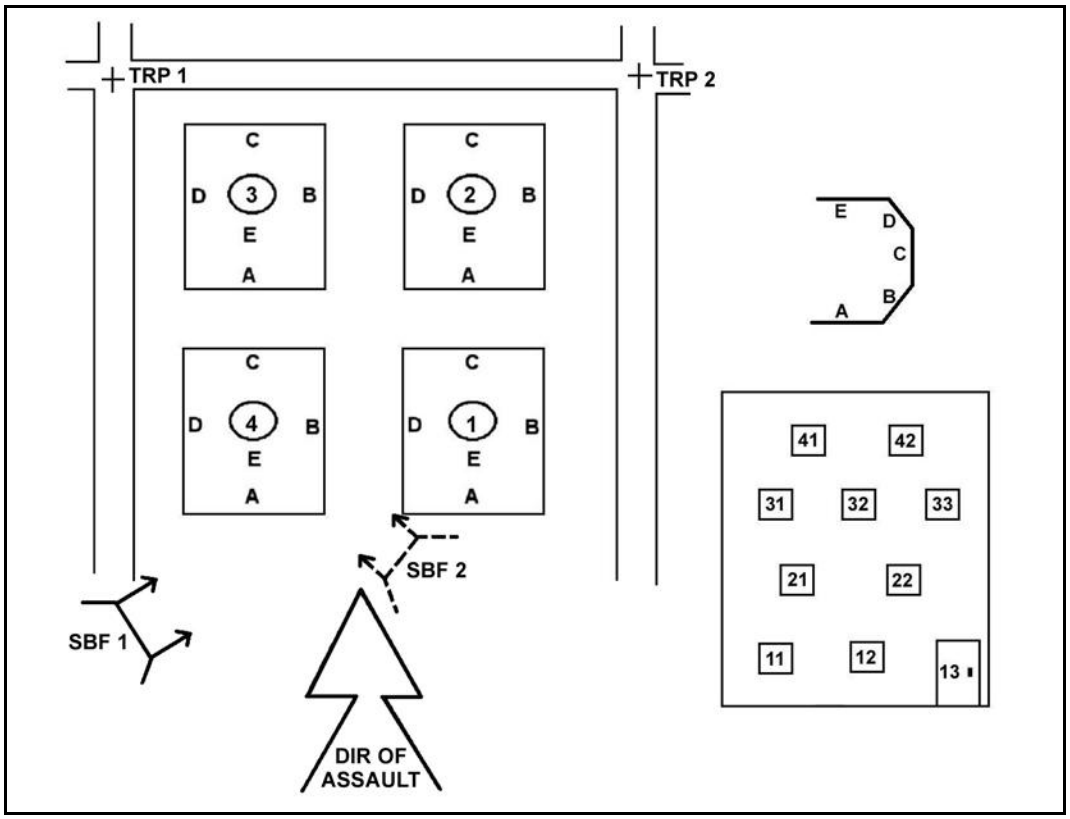


Figure 6-11. Direction of assault technique for direct fire planning and control.

6-10. ASSAULT A BUILDING

The SBCT infantry company conducts this mission independently or as part of the assault element of an SBCT battalion. (Independently is defined here as an SBCT infantry company having to provide its own support element, as opposed to conducting an operation without flank and rear support, such as a raid or ambush.) If the company is the assault force of a battalion, it most frequently conducts the assault against a large building defended by a strong enemy force (for example, a reinforced platoon). The SBCT company commander must clearly understand the specified and implied tasks required to accomplish the mission, as well as the SBCT and battalion commander's intent and the desired mission end state. This allows the company commander to task-organize and issue specific missions to his subordinate elements concerning which floors and rooms to clear, seize, or bypass. As an example, Figure 6-12, page 6-26, depicts an infantry battalion assigned the task of clearing the objectives in its sector (DOG and TAIL). Company B has the task of seizing OBJ TAIL. The company commander has decided to assign an intermediate objective (WING) to 1st Platoon. 3d Platoon is a supporting element with the task of isolating WING (1st and 2d squads to occupy the positions indicated) and providing one squad to act as the company reserve (3d squad). 2d Platoon (+) will pass through 1st Platoon, which will mark a passage lane and seize TAIL. The MGS platoon (-) will be integrated into the supporting element for the assault of OBJ WING and OBJ TAIL.

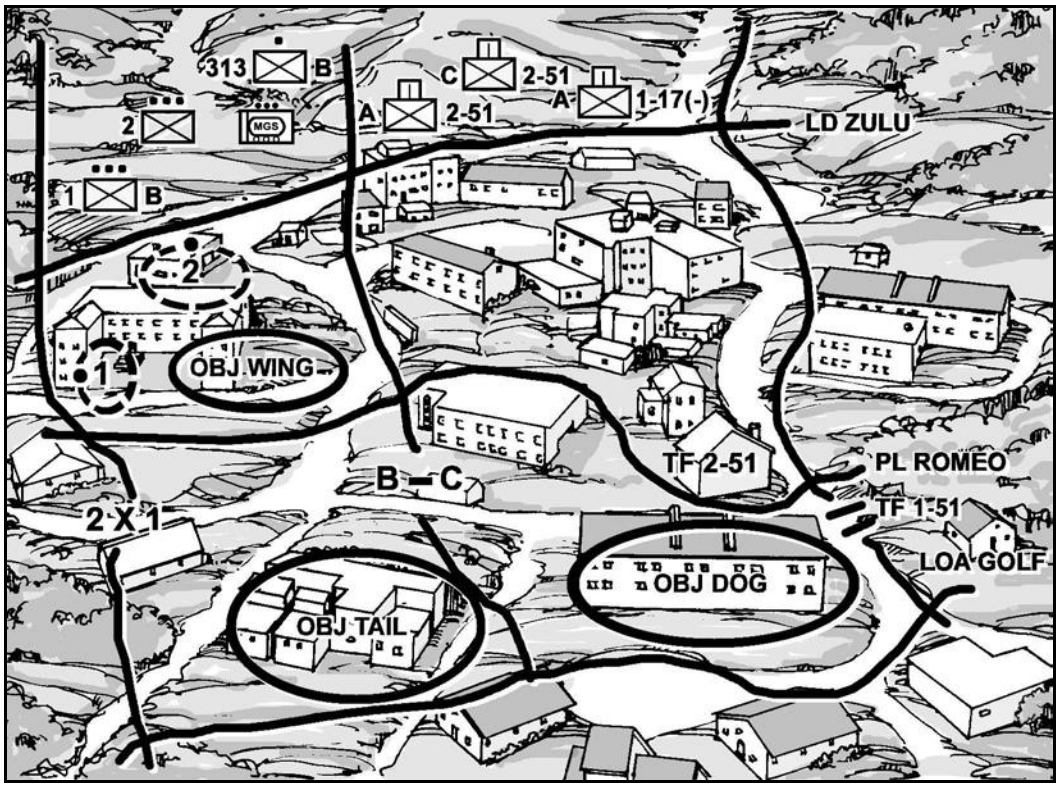


Figure 6-12. Assault of a building.

a. **Execution.** Platoons move floor-to-floor by bounds when clearing a multistory building. This permits troops to rest after a floor has been cleared. It is likely that platoons will need to leave security on cleared floors and in cleared rooms and to facilitate the passage of another platoon in order to continue the assault. The assault element must quickly and violently execute its assault and subsequent clearing operations. Once it gains the momentum, the assault force must maintain this momentum to prevent the enemy from organizing a more determined resistance on other floors or in other rooms. If platoons find rooms, hallways, or stairwells that are barricaded with furniture or where obstacles have been placed, they should first attempt to bypass the barricade or obstacle and maintain the momentum of the attack. If they cannot bypass the barricade or obstacle, they should place security on it, check it for booby traps, and then reduce it. Subordinate leaders should continue the momentum of the assault but not allow the operation to become disorganized.

b. **Ammunition and Equipment.** METT-TC factors and the ROE determine how the assault element is equipped and armed. Commanders must carefully manage the soldier's load during the assault. Ammunition, water, special assault weapons and equipment, and medical supplies are normally the only items carried in the assault. The assault force carries only a fighting load of equipment and as much ammunition as possible, especially grenades. (See Section II, Chapter 11, for a discussion of load management.) The SBCT battalion and SBCT infantry company trains maintain control of additional ammunition and equipment not immediately needed by the assault force. An often-overlooked munition in an urban battle is the light antitank weapon. Soldiers can use these for a variety of purposes such as suppressing a manned position or supporting a

breach into a structure. Resupply should be pushed to the assault element by the support element.

c. **Assault Locations.** The assault may begin from the top or bottom of the building.

(1) ***Top Entry.*** Entering at the top and fighting downward is the preferred method of clearing a building. This method is only feasible, however, when the company can gain access to an upper floor or rooftop by ladder or from the windows or roofs of adjoining, secured buildings, or by helicopter if enemy air defense weapons can be suppressed. The company can also gain access to the roof by entering at ground level and fighting up a stairwell or elevator shaft. They then clear the remainder of the building from the top to bottom. This will afford the soldiers a covered and concealed route to the upper floors of the building. Rooftops are danger areas when surrounding buildings are higher and forces can be exposed to fire from those buildings. Helicopters should land only on those buildings that have special heliports on the roofs or on parking garages, but soldiers can rappel or fast rope onto the roof or dismount as the helicopter hovers a few feet above the roof. Troops can then breach the roof or common walls. They may use ropes or other means to enter the lower floors through the holes created. The use of ladders to assault an upper level should be a last resort.

(2) ***Bottom Entry.*** Entry at the bottom is common and may be the only option available. When entering from the bottom, breaching a wall is the preferred method because doors and windows may be booby-trapped and covered by fire from inside the structure. If the assault element must enter through a door or window, it should enter from a rear or flank position. Prior to entering the building the commander must ensure the platoons have the capability to create entry points from covered and concealed positions. MGS or other breaching assets should be allocated to the platoons. These assets conduct the breaches and allow the platoons to enter the building to be seized directly from covered and concealed positions.

d. **Suppressive Fires During the Assault.** The support force provides suppressive fire while the assault force systematically clears the building. It also provides suppressive fire on adjacent buildings to prevent enemy reinforcements or withdrawal. Suppressive fire may consist of firing at known and suspected enemy locations or, depending on the ROE, may include only firing at identified targets or returning fire when fired upon. The support force destroys or captures any enemy personnel trying to exit the building. The support force must also deal with civilians displaced by the assault.

e. **Clearing Rooms.** SBCT infantry company commanders must ensure that clearing platoons carry enough room marking equipment and plainly mark cleared rooms from the friendly side IAW unit SOP (Figure 6-13, page 6-28). Markings must be visible to friendly units even if the operation occurs during limited visibility. The support force must understand which markings will be used and ensure that suppressive fires do not engage cleared rooms and floors. Maintaining an awareness as to where the assault teams are and which rooms and floors have been cleared is imperative and a key command and control function for the company commander.

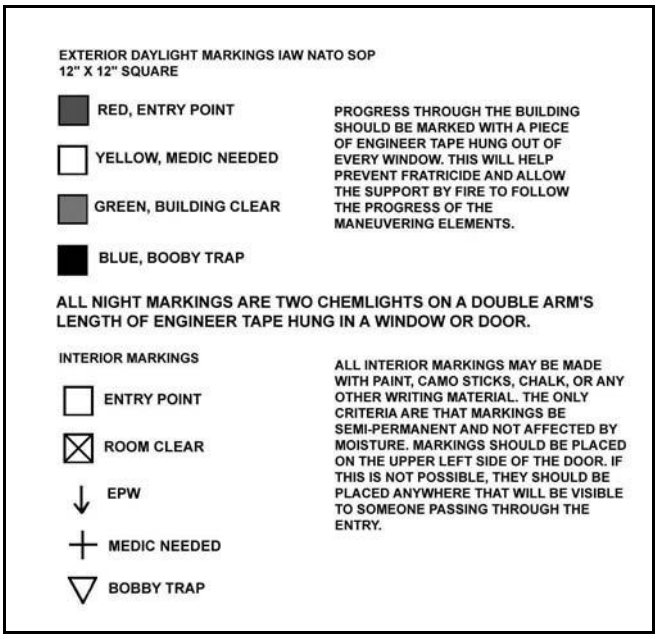

EXTERIOR DAYLIGHT MARKINGS IAW NATO SOP
12" X 12" SQUARE
RED, ENTRY POINT
YELLOW, MEDIC NEEDED
GREEN, BUILDING CLEAR
BLUE, BOOBY TRAP
PROGRESS THROUGH THE BUILDING SHOULD BE MARKED WITH A PIECE OF ENGINEER TAPE HUNG OUT OF EVERY WINDOW. THIS WILL HELP PREVENT FRATRICIDE AND ALLOW THE SUPPORT BY FIRE TO FOLLOW THE PROGRESS OF THE MANEUVERING ELEMENTS.
ALL NIGHT MARKINGS ARE TWO CHEMLIGHTS ON A DOUBLE ARM'S LENGTH OF ENGINEER TAPE HUNG IN A WINDOW OR DOOR.
INTERIOR MARKINGS
ENTRY POINT
ROOM CLEAR
EPW
MEDIC NEEDED
BOBBY TRAP
ALL INTERIOR MARKINGS MAY BE MADE WITH PAINT, CAMO STICKS, CHALK, OR ANY OTHER WRITING MATERIAL. THE ONLY CRITERIA ARE THAT MARKINGS BE SEMI-PERMANENT AND NOT AFFECTED BY MOISTURE. MARKINGS SHOULD BE PLACED ON THE UPPER LEFT SIDE OF THE DOOR. IF THIS IS NOT POSSIBLE, THEY SHOULD BE PLACED ANYWHERE THAT WILL BE VISIBLE TO SOMEONE PASSING THROUGH THE ENTRY.

Figure 6-13. Sample marking SOP.

6-11. ATTACK A BLOCK OR GROUP OF BUILDINGS

An SBCT infantry company normally attacks a block or group of buildings as part of an SBCT battalion attack. To attack a block or group of buildings, an infantry company reinforces with MGS vehicles and possibly engineers, BFVs, or tanks, consistent with the ROE and the enemy situation.

a. **Execution.** Platoon attacks supported by both direct and indirect fires characterize the execution of this mission. Success depends on isolating enemy positions (which often become platoon objectives), suppressing enemy weapons, seizing a foothold in the block, and clearing the block's buildings room by room.

b. **Direct Fire Weapons.** ICVs, MGS vehicles, machine guns, and other direct fire support weapons fire on the objective from covered positions, consistent with the ROE. These weapons should not be fired for prolonged periods from one position. The gunners should use a series of positions and displace from one to another to gain better fields of fire and to avoid being targeted by the enemy. Direct fire support tasks can be assigned as follows:

- Machine guns fire along streets and into windows, doors, mouseholes, and other probable enemy positions. ROE may restrict firing only to known enemy locations.
- MGS vehicles fire at targets protected by walls and provide protection against enemy vehicles, as required.
- ICVs may use mounted weapons systems to suppress enemy positions.
- Riflemen engage targets of opportunity.

c. **Obscuration and Assault.** Before an assault, the SBCT infantry company commander should employ smoke to conceal the assaulting platoons. He secures their flanks with direct fire weapons and employment of the reserve, if necessary. Concealed by smoke and supported by direct fire weapons, an assaulting platoon attacks the first isolated building. The assault force utilizes the cover of suppressive fires to gain a

foothold. The company commander must closely coordinate the assault with its supporting fire so that the fire is shifted at the last possible moment. After seizing the block, the SBCT infantry company consolidates and reorganizes to repel a counterattack or to continue the attack.

6-12. CONSOLIDATION AND REORGANIZATION

Consolidation occurs immediately after each action. Consolidation provides security and allows a unit to reorganize and prepare for counterattack. In an urban environment, it is extremely important that units consolidate rapidly after each engagement. The assault force in a cleared building must be quick to consolidate in order to repel enemy counterattacks and to prevent the enemy from infiltrating back into the cleared building. Many actions occur simultaneously. After securing a floor, selected members of the assault force cover potential enemy counterattack routes to the building. Priority must be given to securing the direction of attack first. Those soldiers alert the assault force and place a heavy volume of fire on enemy forces approaching the building. Reorganization occurs after consolidation. Reorganization actions prepare the unit to continue the mission.

a. **Consolidation Actions.** Platoons assume hasty defensive positions after the objective has been seized or cleared. Based upon their specified and implied tasks, assaulting platoons should be prepared to assume an overwatch mission and support an assault on another building or another assault within the building. Commanders must ensure that platoons guard--

- Enemy mouseholes between adjacent buildings.
- Covered routes to the building.
- Underground routes into the basement.
- Approaches over adjoining roofs.

b. **Reorganization Actions.** After consolidation, reorganization actions include the following:

- Resupply and redistribute ammunition.
- Mark the building to indicate to friendly forces that it has been cleared.
- Move support or reserve elements into the objective (if tactically sound).
- Redistribute personnel and equipment on adjacent structures.
- Treat and evacuate wounded personnel.
- Treat and process EPWs.
- Segregate and safeguard civilians.
- Reestablish the chain of command.
- Redistribute personnel on the objective to support the next phase or mission.

NOTE: During evacuation of casualties, the commander must ensure that he does not allow the evacuation to interfere with his on-going operation. He must ensure adequate forces are maintained to prevent the enemy from successfully counterattacking and reoccupying the building or buildings the company seized and cleared.

Section III. DEFENSE

The two defense patterns (area and mobile) apply in UO. Of these two patterns, the mobile defense pattern is more focused on the enemy. The commander may decide to use it based on his estimate of the situation. The area defense pattern is more appropriate when most of the reasons for defending a built-up area are focused on retaining terrain. In a built-up area, the defender must take advantage of inherent cover and concealment afforded by urban terrain. He must also consider restrictions to the attacker's ability to maneuver and observe. By using the terrain and fighting from well-prepared and mutually supporting positions, a defending force can delay, block, fix, or inflict heavy losses on a much larger attacking force. The defense of a built-up area should be organized around key terrain features, buildings, and areas that preserve the integrity of the defense and provide the defender ease of movement. The defender must organize and plan his defense by considering obstacles, avenues of approach, key terrain, observation and fields of fire, cover and concealment, fire hazards, and communications restrictions.

6-13. METT-TC FACTORS

Procedures and principles for planning and organizing the defense of a built-up area are the same as for other defensive operations. In developing a defensive plan, the defender considers the factors of METT-TC, emphasizing their impact on fire support, preparation time, work priorities, and control measures. Planning for the defense of a built-up area must be detailed and centralized. As in the offense, execution is decentralized as the battle develops and enemy forces assault buildings and rooms. Therefore, it is imperative that the company commander and his subordinate leaders understand the mission end state and the commanders' intent two levels up.

a. **Mission.** The SBCT infantry commander must receive, analyze, and understand the mission before he begins planning. He may receive the mission as a FRAGO or formal OPORD, and he must analyze all specified and implied tasks. Depending on mission requirements, an infantry company must be prepared to defend independently or as part of a larger force (SBCT battalion). Mission planning is essentially the same for all defensive operations. A hasty defense may be conducted in any of the situations described below, immediately after offensive operations, or when a higher state of security is warranted during stability operations or support operations. The major difference lies in the amount of time for preparation and the ROE.

b. **Enemy.** The commander must also analyze the type of enemy force he may encounter. If the attacker is mostly dismounted infantry, the greatest danger is allowing him to gain a foothold. If the attacker is mostly armored or mounted motorized infantry, the greatest danger is that he will mass direct fire and destroy the defender's positions. Intelligence gathering for defensive operations is not limited to only studying the enemy. Commanders must emphasize obtaining and using all intelligence. The items of intelligence peculiar to combat in built-up areas include--

- Street, water, and sewer plans.
- Key installations and facilities.
- Key civilians.
- Civilian police and paramilitary forces.
- Sources of food.

- Communications facilities and plans.
- Power stations.

c. **Terrain.** Terrain in built-up areas is three-dimensional: ground level (streets and parks), above ground (buildings), and below ground (subways and sewers). Analysis of all manmade and natural terrain features is critical when planning to defend on built-up terrain. The type of built-up area in which he will operate affects the commander's defensive plan.

(1) ***Villages.*** Villages are often on choke points in valleys, dominating the only high-speed avenue of approach through the terrain. If the buildings in such a village are well constructed and provide good protection against both direct and indirect fires, a formidable defense can be mounted by placing a company in the town while controlling close and dominating terrain with other SBCT battalion elements.

(a) If the terrain allows easy bypass and there are no other villages on defendable terrain within a mutually supporting distance, it is unwise to defend the village. Doing so would allow friendly forces to be easily bypassed and isolated.

(b) Commanders may use villages on approaches to large towns or cities to add depth to the defense or to secure the flanks. These villages are often characterized by clusters of houses and buildings (stone, brick, or concrete). Company-size battle positions in these small villages can block approaches into the main defensive positions.

(2) ***Strip Areas.*** Strip areas consist of houses, stores, and factories and are built along roads or down valleys between towns and villages. They afford the defender the same advantages as villages. If visibility is good and enough effective fields of fire are available, a unit acting as a security force need occupy only a few strong positions spread out within the strip. This will deceive the enemy, when engaged at long ranges, into thinking the strip is an extensive defensive line. Strip areas often afford covered avenues of withdrawal to the flanks once the attacking force is deployed and before the security force becomes decisively engaged.

(3) ***Towns and Cities.*** When facing a predominantly armored enemy, a small force can gain an advantage in combat power when defending a small city or town that is a choke point by placing MGSs, ICVs, and Javelins on positions dominating critical approaches. To deny the enemy the ability to bypass the town or city, the defending force must control key terrain and coordinate with adjacent forces. Reserve forces should be placed where they can quickly reinforce critical areas. Obstacles and minefields assist in slowing and canalizing the attacker.

(a) Finding positions in towns and cities that provide both good fields of fire and cover is often difficult. The forward edges of a town usually offer the best fields of fire but can be easily targeted by enemy overwatch and supporting fire. These areas often contain residential buildings constructed of light material. Factories, civic buildings, and other heavy structures, which provide adequate cover and are more suitable for a defense, are more likely to be found deeper in the town and have limited fields of fire on likely avenues of approach.

(b) Since the forward edge of a town is the obvious position for the defender, it usually should be avoided. However, the defender can set up his position there if the terrain limits the enemy's ability for engagement or contains strongly constructed buildings that give defending units adequate protection.

(c) A force may initially be assigned battle positions on the forward edge of the town to provide early warning of the enemy's advance. The force engages the enemy at long range and deceives the enemy as to the true location of the defense. This force should withdraw in time to avoid decisive engagement. If there is limited observation from the forward edge, a force should be positioned on more favorable terrain forward or to the flanks of the town to gain better observation and to engage the enemy at long range.

(d) To prevent airmobile or airborne landings within the city or town, the commander must emplace obstacles on probable LZs and DZs, to include parks, stadiums, and large rooftops and heliports. Direct and indirect fires should also cover these.

(4) ***Large Built-Up Areas.*** In large built-up areas, tall buildings are normally close together. This may require a higher density of troops and smaller defensive sectors than in other urban terrain. The density of buildings, rubble, and street patterns may dictate the depth and frontage of the unit (Table 6-1).

UNIT	FRONTAGES	DEPTHS
SBCT infantry battalion	4 to 8 blocks	3 to 6 blocks
SBCT infantry company	2 to 4 blocks	2 to 3 blocks
SBCT infantry platoon	1 to 2 blocks	1 block
NOTE: An average city block has a frontage of about 175 meters. These minimum figures apply in areas of dense block-type construction, multistory buildings, and underground passages.		

Table 6-1. Approximate frontages and depths in large built-up areas.

(a) In a large built-up area, an SBCT infantry company has a sector, battle position(s), or a strongpoint to defend. Although mutual support between positions should be maintained, built-up terrain often allows for infiltration routes that the enemy may use to pass between positions. Therefore, the defender must identify the following:

- Positions that enable him to place effective direct fires on the infiltrating enemy.
- Covered and concealed routes for friendly elements to move between positions (subways and sewers).
- Structures that dominate large areas.
- Areas where antiarmor weapons have effective fields of fire, such as parks, boulevards, rivers, highways, and railroads.
- Firing positions for mortars.
- Command and control locations that offer cover, concealment, and ease of communications.
- Protected storage areas for supplies.

(b) Leaders choose buildings that add most to the general plan of defense for occupation. Mutual support between these positions is vital to prevent the attacker from maneuvering and outflanking the defensive position, making it untenable. Buildings chosen for occupation as defensive positions should have the following characteristics:

- Good protection.
- Strong floors to keep the structure from collapsing under the weight of debris.
- Thick walls.

- Constructed of nonflammable materials (avoid wood).
- Strategically located (corner buildings or prominent structures).
- Adjacent to streets, alleys, vacant lots, and park sites. (These buildings usually provide better fields of fire and are more easily tied in with other buildings.)
- Covered by friendly fire and offering good escape routes.

(5) ***Obstacles.*** A built-up area is itself an obstacle since it canalizes and impedes an attack. Likely avenues of approach should be blocked by obstacles and covered by fire (Figure 6-14). Barriers and obstacles should be emplaced in three belts, consistent with the ROE.

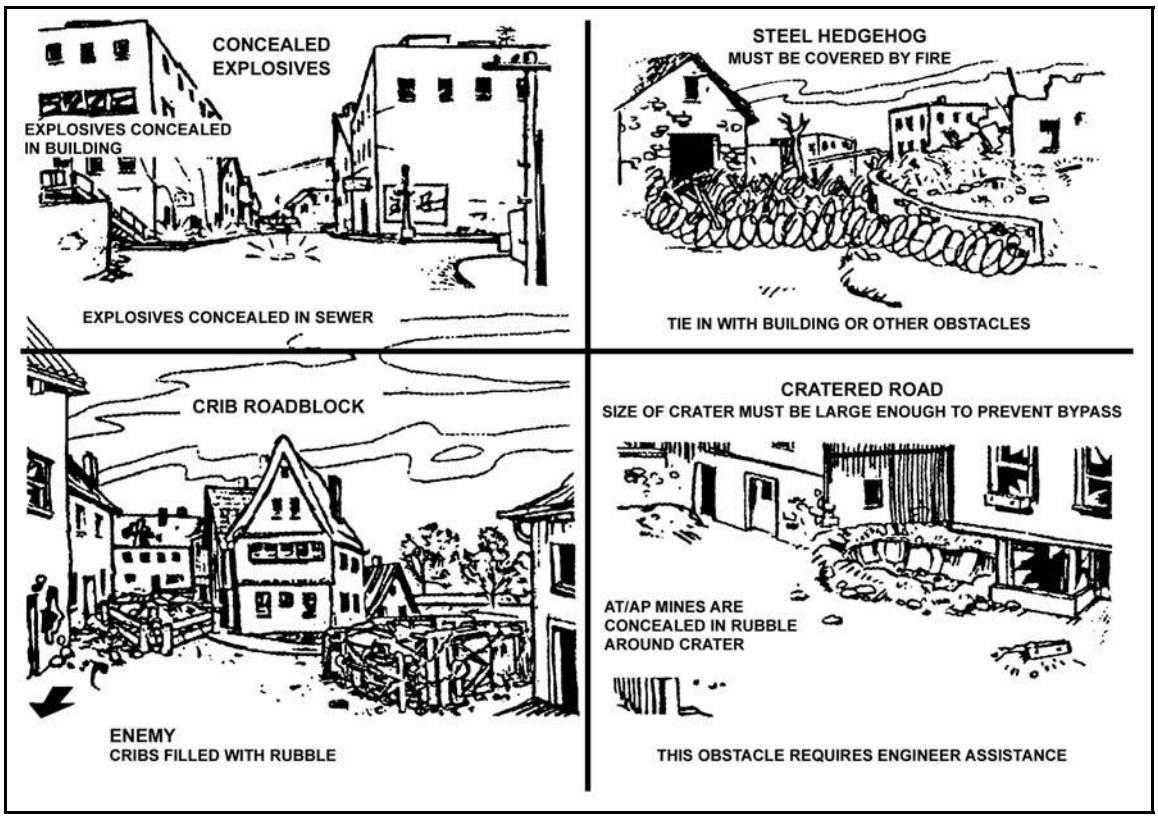


Figure 6-14. Example of urban obstacles.

(6) ***Avenues of Approach.*** The defender must consider not only the conventional avenues of approach into and out of the city, but also the avenues above and below ground level within built-up areas. The defender normally has the advantage. He knows the built-up area and can move rapidly from position to position through buildings and underground passages. Control of these above- and below-ground avenues of approach becomes more critical when the defense of key terrain must be oriented against terrorism and sabotage. All avenues of approach (three-dimensionally) must be denied. SBCT infantry company commanders must not overlook the use of field-expedient obstacles, such as cars and light poles, or the emplacement of command detonated antipersonnel mines and antitank mines. Commanders must clearly understand the ROE and what they are permitted to emplace. When necessary, obstacles can be emplaced without mines and covered by fire within the parameters of the ROE.

(7) ***Key Terrain.*** Key terrain is any place where seizure, retention, or control affords a marked advantage to either combatant. Examples of key terrain during UO are bridges over canals or rivers, building complexes, public utilities or services, and parks. The population of a built-up area may also be considered key terrain. The identification of key terrain allows the defender to select his defensive positions and assists in determining the enemy's objectives.

(8) ***Observation and Fields of Fire.*** The defender must position weapons to obtain maximum effect and mutual supporting fire. This allows for long-range engagements out to the maximum effective ranges. Observers should be well above street level to adjust fires on the enemy at maximum range. Fires and FPFs should be preplanned and, if possible and ROE permitting, preregistered on the most likely approaches to allow for their rapid shifting to threatened areas.

(9) ***Cover and Concealment.*** The defender should prepare positions using the protective cover of walls, floors, and ceilings. Soldiers should always improve positions using materials on hand. When the defender must move, he can reduce his exposure by--

- Using prepared breaches through buildings.
- Moving through reconnoitered and marked subterranean systems.
- Using trenches.
- Using the concealment offered by smoke and darkness to cross open areas.

d. **Troops Available**. Urban operations are manpower intensive.

(1) ***Employment of Platoons and Organic Assets.*** Once the SBCT infantry commander has decided where to defend, he should select platoon battle positions or sectors that block or restrict the enemy's ability to maneuver and control key areas. The frontage for a platoon is about one to two city blocks long. Platoons can occupy about three small structures or a larger two- to three-story building (Figure 6-15). Along with his primary and alternate positions, the platoon leader normally selects one supplementary position to reorient his defense to meet enemy threats from another direction. Companies may be tasked to detach a platoon to act as the SBCT infantry battalion reserve.

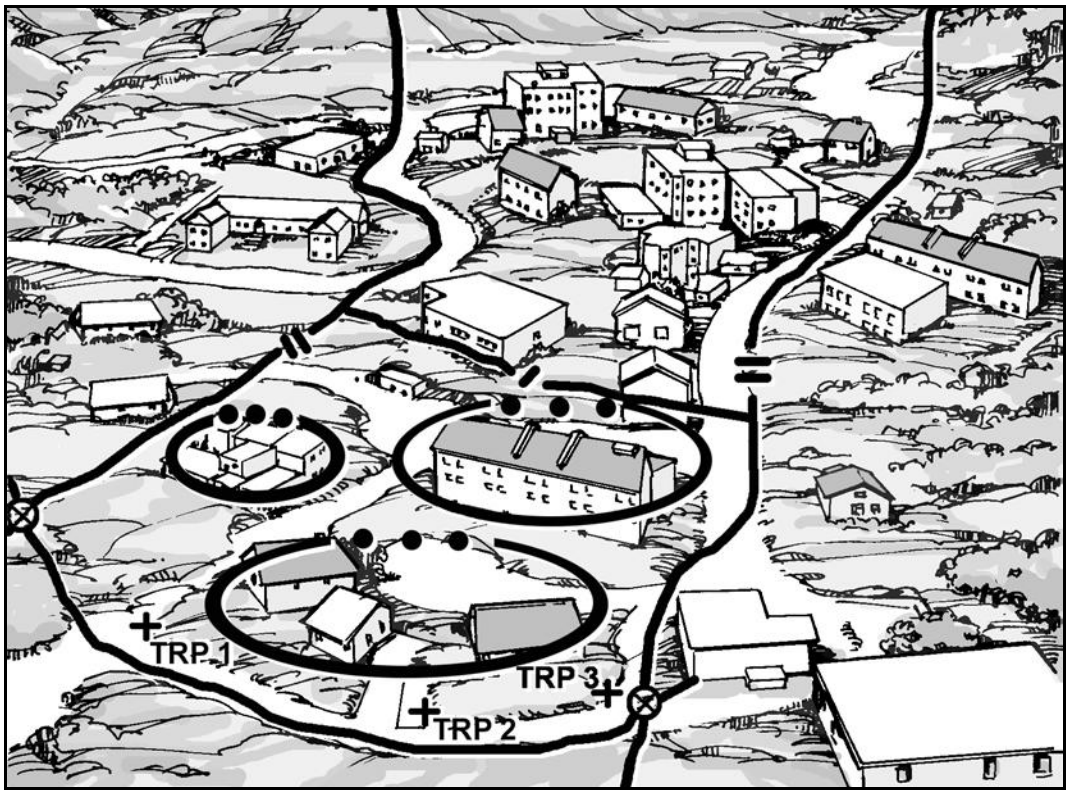


Figure 6-15. Platoon battle positions in a company sector.

(a) *Mortar Section*. Mortars at the SBCT infantry company level are employed to maximize the effect of their high-angle fires. They should be used to engage--

- Enemy overwatch positions.
- Enemy infantry before they seize a foothold.
- Targets on rooftops.
- Enemy reinforcements within range.

(b) *Javelins*. Based on the Javelin's capabilities and limitations, commanders give the platoons missions that can use antiarmor systems to support the defensive scheme of maneuver.

(2) ***Employment of MGS Vehicles and ICVs.*** The SBCT infantry commander should employ MGS vehicles and ICVs to take advantage of their long-range fires, armored protection, and mobility. Some built-up areas may restrict the mobility of MGS vehicles and ICVs and make them vulnerable to enemy infantry antiarmor weapons.

(a) When MGSs and ICVs are employed in the defense of a built-up area, infantry should be positioned to provide security against close antiarmor fires and to detect targets for the armored vehicles. MGSs and ICVs should be assigned engagement areas in support of the defensive scheme of maneuver. ICVs and Javelins should supplement MGS fires. MGSs and ICVs may be--

- Positioned on the edge of the city in mutually supporting positions.
- Positioned on key terrain on the flanks of towns and villages.
- Used to cover barricades and obstacles by fire.
- Positioned as part of the reserve.

(b) MGSs and ICVs are normally employed as a platoon. However, sections and individual vehicles may be employed with infantry platoons or squads. This provides MGSs and ICVs with the close security of the infantry. MGSs and ICVs provide the SBCT infantry company commander with a mobile force to respond quickly to enemy threats on different avenues of approach. They can also be effectively employed in counterattacks.

(3) ***Employment of Fire Support.*** Fire planning must be comprehensive due to the proximity of buildings to targets, minimum range restrictions, repositioning requirements, and ROE. Mortar and artillery fires are planned on top of and immediately around defensive positions for close support.

(a) *Artillery*. Artillery may be used as direct or indirect support. Artillery fire should be used--

- To suppress or obscure enemy overwatch elements.
- To disrupt or destroy an assault.
- To provide counterbattery fire.
- To support counterattacks.
- To provide direct fire when necessary.

(b) *Final Protective Fires*. FPFs are planned to stop dismounted assaults in front of the defensive positions. Fires within the city are planned along likely routes of advance to destroy the enemy as he attempts to deepen a penetration.

(c) *Priorities of Fire*. The SBCT infantry company commander should establish priorities of fire based on enemy avenues of approach and enemy systems that present the greatest danger to the defense. For example, during the attacker's initial advance, tanks, BMPs, and overwatching elements are the greatest threat to the defense. Javelins should concentrate on destroying armored vehicles. In certain situations, enemy armored personnel carriers (APCs) may present a larger threat than enemy tanks in a built-up area; the APCs carry infantry, which can gain footholds in buildings. Mortar and artillery fires should suppress enemy ATGMs and overwatch positions or elements. If enemy formations secure a foothold, priority shifts to the destruction of enemy forces within the penetration.

(d) *Control of Supporting Fires*. As the attack progresses in the city, enemy indirect fires increase to separate infantry from supporting MGSs and ICVs. During this phase, friendly artillery concentrates on counterfire missions and the destruction of reinforcements that are approaching the city. Mortars concentrate on infantry attacks.

(e) *Support of Counterattacks*. When initiated, counterattacks are given priority of supporting fires. When artillery fires the missions mentioned above, it must remain mobile and be prepared to displace to preplanned positions to avoid enemy counterbattery fire.

(f) *Indirect Fire Planning*. At company and platoon level, indirect fire plans include fires of organic, attached, and supporting weapons. The SBCT infantry company commander also plans his own mortar and artillery fires on and immediately around his battle positions for close support.

(g) *Air Defense Assets*. Air defense assets available to the commander, such as Stinger and Avenger, are normally employed to ensure all-round air defense. These assets are normally controlled at SBCT battalion level, but they may be placed under the SBCT infantry company commander’s control when METT-TC factors warrant that type of use.

The lack of good firing positions for long-range air defense missile systems in the built-up area may limit the number of deployed weapons. In the defense, weapons systems may have to be winched or airlifted into positions. Rooftops and parking garages are good firing positions because they normally offer a better line of sight. Stingers and Avengers may be assigned to protect specific positions or function in general support of the battalion.

(4) ***Employment of Engineers.*** Engineers are employed under SBCT battalion control or attached to SBCT infantry companies. SBCT infantry company commanders may receive an engineer squad to assist them in preparing the defense. Commanders must consider engineer tasks that enhance survivability, mobility, and countermobility. Tasks that engineers can accomplish in the defense of a built-up area include--

- Constructing obstacles and rubbling.
- Clearing fields of fire.
- Laying mines.
- Preparing mobility routes between positions.
- Preparing fighting positions.

(5) ***Employment of the Reserve.*** The commander's defensive plan must always consider the employment of a reserve. The reserve force should be prepared to counterattack to regain key positions, to block enemy penetrations, to protect the flanks, or to assist by fire in the disengagement and withdrawal of positions. For combat in a built-up area, a reserve force--

- Normally consists of infantry.
- Must be as mobile as possible.
- May be supported by an MGS.

e. **Time Available.** The commander must organize and establish priorities of work, depending upon the time available. Many tasks can be accomplished simultaneously, but priorities for preparation should be in accordance with the commander's order. A sample priority of work sequence follows:

(1) ***Establish Security.*** The unit should quickly establish all-round security by placing forces on likely avenues of approaches. METT-TC factors determine the level of security (for example, 50 percent or 30 percent). The reconnaissance and counterreconnaissance plan should be emphasized.

(2) ***Assign Areas of Responsibility.*** Boundaries define sectors of responsibility. They include areas where units may fire and maneuver without interference or coordination with other units. Responsibility for primary avenues of approach should never be split. In areas of semidetached construction, where observation and movement are less restricted, boundaries should be established along alleys or streets to include both sides of a street in a single sector. Where buildings present a solid front along streets, boundaries may have to extend to one side of the street. Battle positions should also be specifically assigned to platoons, as required by METT-TC. The SBCT infantry company commander should specify which building(s) comprise the platoon battle position or strongpoint. Positions should be clearly designated so that no doubt remains as to which platoon has responsibility for occupation or control.

(3) ***Clear Fields of Fire.*** In built-up areas, commanders may need to rubble certain buildings and structures to provide greater protection and fields of fire to the defender. If the ceiling of a lower-story room can support the weight of the rubble, collapsing the top

floor of a building before the battle starts may afford better protection against indirect fires. Rubbling an entire building can increase the fields of fire and create an obstacle to enemy movement. Defenders must be careful, however. Rubbling buildings too soon or rubbling too many may give away exact locations and destroy cover from direct fire. Planning must be extensive so that rubbled buildings will not interfere with planned routes of withdrawal or counterattack. Vehicles may also have to be moved to clear fields of fire.

(4) ***Select and Prepare Initial Fighting Positions.*** The SBCT infantry company commander should select positions in depth. The unit should prepare positions as soon as troops arrive and continue preparing as long as positions are occupied. Enemy infiltration or movement sometimes occurs between and behind friendly positions. Therefore, each position must be organized for all-round defense. The defender should also--

(a) Make minimum changes to the outside appearance of buildings where positions are located.

(b) Screen or block windows and other openings to keep the enemy from seeing in or tossing in hand grenades. Include all windows so that the enemy cannot tell which openings the defenders are behind.

(c) Remove combustible material to limit the danger of fire. Fires are dangerous to defenders and create smoke that could conceal attacking troops. For these reasons, defenders should remove all flammable materials and stockpile firefighting equipment (such as water and sand). The danger of fire also influences the type of ammunition used in the defense. Do not use tracers or incendiary rounds extensively if threat of fire exists.

(d) Turn off electricity and gas at the facility that serves the urban area. Both propane and natural gas are explosive. Natural gas is also poisonous, displaces oxygen, and is not filtered by a protective mask. Propane gas, although not poisonous, is heavier than air. If it leaks into an enclosed area, it displaces the oxygen and causes suffocation.

(e) Locate positions so as not to establish a pattern. The unit should avoid obvious firing locations like church steeples.

(f) Camouflage positions.

(g) Reinforce positions with all materials available, such as mattresses, furniture, and so forth. Use caution because mattresses and fabric furniture are flammable. Fill drawers and cabinets with earth or sand to provide cover. Consider placing vehicles, such as trucks or buses, over positions outside buildings. Drain flammable fluids from vehicles and remove other flammables such as seats. Fill gas tanks with water.

(h) Block stairwells and doorways with wire or other material to prevent enemy movement. Create holes between floors and rooms to allow covered and concealed movement within a building.

(i) Prepare range cards, fire plans, and sector sketches.

(j) Consider how to use basements. If grazing fire can be achieved from basement windows, emplace machine guns in basements. When not using basements, seal them to prevent enemy entry.

(k) Cache resupply of ammunition, water, and medical supplies.

(5) ***Establish Communications.*** When allocating time to establish communications, commanders should consider the effects of built-up areas. Line-of-sight limitations affect both visual and radio/digital communications. Wire laid at street level is easily damaged by rubble and vehicle traffic. The noise of built-up area combat is much louder than in

other areas, making sound signals difficult to hear. Therefore, the time needed to establish an effective communications system in urban terrain may be greater than in other terrain. SBCT infantry company commanders should consider the following techniques when planning for communications:

(a) Emplace line of sight radios and retransmission sites on the upper floors of buildings.

(b) Use existing telephone systems. However, telephones are not secure even though many telephone cables are underground.

(c) Use messengers at all levels since they are the most secure means of communications.

(d) If assets are available, lay wire through buildings for maximum protection.

(6) ***Emplace Obstacles and Mines.*** To save time and resources in preparing the defense, commanders must emphasize using all available materials (to include automobiles, railcars, and rubble) to create obstacles. Civilian construction equipment and materials must be located and inventoried. This equipment can be used with engineer assets or in place of damaged equipment. Coordination must be made with proper civilian officials before use, which is normally a brigade or battalion staff responsibility. Engineers can provide advice and resources as to the employment of obstacles and mines.

(a) The principles for employing mines and obstacles do not change in the defense of a built-up area, but techniques do change. For example, concrete and asphalt make burying and concealing mines in streets difficult. Consider placing mines in sandbags so they are not visible and using fake mines placed in sandbags in order to deceive the enemy. Mines and obstacles must be emplaced consistent with the ROE. Any antipersonnel mines must be command detonated.

(b) Obstacles must be tied to buildings and rubbled areas to increase effectiveness and to canalize the enemy. Family of scatterable mines (FASCAM) may be effective on the outskirts of an urban area or in parks, but in a city core, areas may be too restrictive.

(c) Riot control agents may be employed to control noncombatant access into defensive areas.

(7) ***Improve Fighting Positions.*** When time permits, all positions, to include supplementary and alternate positions, should be reinforced with sandbags and provided overhead cover. Attached engineers can help in this effort by providing advice and assisting with construction.

(8) ***Establish and Mark Routes between Positions.*** Reconnaissance by all defending elements assists in route selection for use by defenders moving between positions. Movement is crucial in fighting in built-up areas. Early selection and marking of routes adds to the defender's advantages.

f. **Civilian Considerations.** International law and moral imperatives require the SBCT infantry company commander to consider the effects of operations on the civilian population. The company commander must also consider cultural, economical, and political boundaries as they may have a direct impact on the range of tactical options available to him.

(1) Commanders may be precluded from countermobility operations directed at economically important roads, railways, and bridges. They must consider civilian movement when emplacing minefields. Commanders implement restrictive fire control measures consistent with ROE.

(2) Units with large civilian populations in their AO often must conduct support operations while preparing a defense. When Army forces must damage areas that are important to civilians, they ensure that civilian leaders and populations understand why these actions are necessary.

g. **Fire Hazards.** The defender's detailed knowledge of the terrain permits him to avoid areas that are likely to be fire hazards. All urban areas are vulnerable to fire, especially those with many wooden buildings. The defender can deliberately set fires--

- To disrupt and disorganize the attackers.
- To canalize the attackers into more favorable engagement areas.
- To obscure the attacker's observation.

Likewise, the enemy may cause fires to confuse, disrupt, or constrain friendly forces and efforts. Company commanders should anticipate this possibility and ensure that fire-fighting equipment is on hand when conducting this type of operations.

6-14. COMMAND AND CONTROL

In all defensive situations, the SBCT infantry company commander should position himself well forward so that he can control the action. Regardless of the utility of FBCB2, the leader must see and feel the battlefield. In urban terrain, this is even more critical due to obstacles, poor visibility, difficulty in communication, and intense fighting.

a. **Graphic Control Measures.** The use of graphic control measures and understanding of the commander’s intent two levels up by all leaders become even more important to mission accomplishment in an urban environment. Phase lines can be used to report the enemy’s location or to control the advance of counterattacking units. Principal streets, rivers, and railroad lines are suitable phase lines. They should be clearly and uniformly marked on the near or far side of the street or open area. Checkpoints aid units in reporting locations and controlling movement. Contact points designate specific points where units make physical contact. Target reference points can facilitate fire control. These and other control measures ensure coordination throughout the chain of command.

b. **Command Posts.** Command posts should be located underground, if possible. Their vulnerability requires all-round security. Since each CP may have to secure itself, it should be near the reserve unit for added security. When collocated with another unit, however, CPs may not need to provide their own security. A simplified organization for command posts is required for ease of movement. Since rubble often hinders movement of tracked and wheeled vehicles, the company CP must be prepared to backpack communications and other needed equipment for operations. Alternate CP locations and routes to them must also be identified.

c. **Actions on Contact.** When enemy forces enter and maneuver to seize initial objectives, the defender should employ all available fires to destroy and suppress the direct fire weapons that support the ground attack. Tanks and enemy APCs should be engaged as soon as they come within the effective range of antiarmor weapons. As the enemy attack develops, the actions of small-unit leaders assume increased importance. Squad and platoon leaders are often responsible for fighting independent battles. Thus, it is important that all leaders understand their commander's concept of the defense (two levels up). Where the enemy’s efforts are likely to result in his gaining a foothold, violent counterattacks must deny him access into the main battle area.

d. **Rear Area.** SBCT infantry companies do not normally deploy maneuver elements in the rear area; however, squads and platoons may be detached in order to protect CSS elements. In certain cases, the company trains may collocate with the battalion combat trains.

e. **Counterattacks.** Small infantry-heavy reserves supported by ICVs and MGSs, if available, should be prepared to counterattack to regain key positions, to block enemy penetrations, to provide flank protection, and to assist by fire the disengagement and withdrawal of endangered positions. It is especially important for enemy footholds to be repelled violently. When the reserves are committed to counterattack to reinforce a unit, they may be attached to the unit in whose sector the counterattack is taking place. Otherwise, the counterattack becomes the main effort. This makes coordination easier, especially if the counterattack goes through the unit's positions.

f. **Defense During Limited Visibility.** SBCT infantry company commanders can expect the attacker to use limited visibility conditions to conduct necessary operations to sustain or gain daylight momentum.

(1) Commanders should employ the following measures to defend against attacks during limited visibility:

(a) Shift defensive positions and crew-served weapons from an alternate position or a hasty security position just before dark to deceive the enemy as to the exact location of the primary position.

(b) During limited visibility, consider the need to occupy, block, or patrol unoccupied areas between units, which can be covered by observed fire during daylight. Install early warning devices.

(c) Emplace radar, remote sensors, and night observation devices to cover streets and open areas.

(d) Position nuisance mines, noise-making devices, tanglefoot tactical wire, and OPs on all avenues of approach for early warning and to detect infiltration.

(e) Plan for artificial illumination, to include the use of street lamps, stadium lights, pyrotechnics, and so forth.

(f) Use indirect fire weapons, grenade launchers, and hand grenades when defenses are probed to avoid disclosure of defensive positions.

(2) Plan a signal to initiate FPFs when the enemy begins his assault. Crew-served weapons, armored vehicle mounted weapons (if available), and individual riflemen fire within their assigned sectors. Grenades and command-detonated mines should supplement other fires as the enemy approaches the positions.

(3) Move to daylight positions before BMNT. To facilitate movement, buildings should be marked from the friendly side IAW unit SOP.

g. **Communications Restrictions.** Radio/digital communications are initially the primary means of communication for controlling the defense of a built-up area and for enforcing security. Structures and a high concentration of electrical power lines may degrade radio/digital communication in built-up areas. Wire should be emplaced and used for communications as time permits. However, wire can be compromised if interdicted by the enemy. Messengers can be used as another means of communication. Visual signals may also be used but are less effective because of the screening effects of buildings and walls. Signals must be planned, widely disseminated, and understood by all assigned and attached units. Increased battle noise makes the effective use of sound signals difficult.

6-15. HASTY DEFENSE

A very likely defensive mission for the SBCT infantry company in urban terrain is to conduct a hasty defense, which is characterized by reduced preparation time. All the troop-leading procedures are the same. The priorities of work are basically the same, but many take place concurrently. Units are deployed, weapons emplaced, and positions prepared in accordance with the amount of time the company commander has available.

a. **Occupation and Preparation of Positions.** Preparations for the hasty defense vary with the time available. The preparations described below generally take two to four hours. In a hasty defense, the primary effort is to camouflage and conceal the presence of the hasty fighting positions and provide as much protection as possible for the soldiers manning them. The company constructs positions using appliances, furniture, and other convenient items and materials. It locates them back from the windows in the shadows of the room. The company places less emphasis on fortifying positions and making major alterations to the environment, delaying such activities until after it has established security.

(1) ***Position Crew-Served and Special Weapons.*** Generally, the company positions crew-served and special weapons inside buildings unless an outside position is preferable and can be protected and camouflaged.

(2) ***Emplace Barriers and Obstacles.*** The company establishes two belts of barriers and obstacles that are not as extensive as in a defense that permits more time. The company covers all obstacles with observation and fires.

(3) ***Prepare Positions.*** Consider the following work sequence:

(a) Gather available materials, such as tables, dressers, and appliances, to construct positions.

(b) Construct stable firing platforms for the weapons.

(c) Use the material gathered to build frontal and side protection. Fill cabinets, dressers, end tables, and other furnishings with materials to stop small arms fire.

(d) Do not disturb firing windows. Curtains and other aspects of the original setting are components of camouflage.

(e) Construct alternate firing positions similar to the primary positions.

(f) Emplace rear and overhead cover on the primary positions (after constructing alternate positions).

(g) Remove fire hazards. Pre-position firefighting equipment.

(h) Construct dummy positions in rooms above, below, and next to primary and alternate positions in order to draw enemy suppressive fire away from primary positions.

(i) Walk the positions from the enemy side.

(4) ***Rehearsals.*** Conduct rehearsals with leaders and soldiers concerning the orientation of the defense, unit positions, location of crew-served weapons, counterattack plans, withdrawal plan, and so forth.

(5) ***Movement Enhancement.*** There is little time to improve movement within the defense. Units should plan to use tunnels, underground routes, and routes through buildings. The movement enhancement priority is to remove obstructions to alternate positions and the counterattack route.

(6) ***Communications.*** Check communications. Communications are primarily radio and digital. Plan and improve routes for messengers. If time is available, emplace wire as an improvement to the defense.

b. **Improving the Defense.** As time permits, consider the following areas and prioritize them in accordance with the factors of METT-TC:

- Rest plan.
- Barrier and obstacle improvement.
- Improvement of primary and alternate positions.
- Preparation of supplementary positions.
- Additional movement enhancement efforts.
- Initiation of patrols.
- Improvement of camouflage.
- Continued rehearsals for counterattack and withdrawal.
- ICV and MGS integration.

6-16. COMPANY DEFENSE OF A VILLAGE

A village is characterized by a built-up area surrounded by other types of terrain. Normally, an SBCT infantry company defends a village as part of an SBCT battalion defense, establishing battle positions and strongpoints with other SBCT infantry companies defending from key or decisive terrain. Once the SBCT infantry company commander has completed his reconnaissance of the village, he reconnoiters the surrounding terrain and, with the information assembled, he develops his plan for the defense. One of his first decisions is whether to defend with his infantry on the leading edge of the village or farther back within the confines of the village. Normally, defending on the leading edge, where the defending company can take advantage of longer-range observation and fields of fire, is more effective against an armor-heavy force. Defending in depth within the village to deny the enemy a foothold is more effective against a heavy force that is primarily infantry. This decision is based on the factors of METT-TC. The company may need to coordinate with adjacent units to plan for the defense or control of the open terrain that typically surrounds a village.

a. **Influencing Factors.** Several factors influence the commander's decision. First, he must know the type of enemy against which his company will defend. If the threat is mainly infantry, the greatest danger is allowing them to gain a foothold in the town. If the threat is armored or motorized infantry, the greatest danger is that massive direct fire will destroy the SBCT infantry company's defensive positions. The SBCT infantry company commander must also consider the terrain forward and to the flanks of the village from which the enemy can direct fires against his positions.

b. **Platoon Battle Positions.** Platoons are given a small group of buildings in which to prepare their defense, permitting the platoon leader to establish mutually supporting squad-size positions with ICVs. This increases the area that the platoon can control and hampers the enemy's ability to isolate or bypass a platoon. A platoon may be responsible for the road through the village. The rest of the SBCT infantry company is then positioned to provide all-round security and defense in depth.

c. **Company Mortars and Javelins.** The position of the SBCT infantry company mortars must protect the mortars from direct fire and allow for overhead clearance. Javelin positions must allow them to engage targets at maximum ranges with alternate firing points.

d. **ICVs.** Position ICVs in defilade positions behind rubble and walls or inside buildings for movement into and out of the area. ICVs can also conduct resupply,

CASEVAC, and rapid repositioning during the battle, or they can provide a mobile reserve for the company.

e. **MGS.** The SBCT infantry company commander can place the MGS platoon along the leading edge of the defensive position where rapid fire will complement the Javelins. The MGS platoon leader should select exact firing positions and recommend engagement areas. If faced by enemy infantry, the MGS platoon moves to alternate positions with the protection of the infantry. These alternate positions allow the MGS platoon to engage to the front as well as the flanks with as little movement as possible. Positions can be selected within buildings, and mouseholes can be constructed. After they are withdrawn from the leading edge of the town, the MGS platoon can also provide a mobile reserve for the company.

f. **Company Trains.** The SBCT infantry company commander locates a forward area where he can position his company trains. He chooses a location near the main avenue of approach to ease resupply, recovery, and maintenance operations.

g. **Rubbling.** If he has the authority and the ROE permit, the company commander also decides which buildings to rubble. To defeat the enemy, he must have good fields of fire, but rubbling the buildings too soon or rubbling too many may disclose his exact locations and destroy cover from direct fire.

h. **BFVs.** Based on METT-TC considerations and when available, BFVs may be placed along the forward edge of the urban area to engage enemy armored vehicles. Friendly armored vehicles also can be placed in positions to the rear of the buildings and interior courtyards where their weapon systems can provide added rear and flank security. Combat vehicles are assigned primary, alternate, and supplementary positions as well as primary and secondary sectors of fire. They should be positioned in defilade behind rubble and walls or inside buildings for movement into and out of the area. Armored vehicles also can be used for resupply, CASEVAC, and rapid repositioning during the battle. BFVs also can provide a mobile reserve for the company. If a mechanized infantry platoon is attached, it is controlled through its chain of command. If a mechanized infantry section is attached, it can be controlled through the senior squad leader.

i. **Tanks.** If a tank platoon is available, the company commander could place the tanks along the leading edge of the urban area where rapid fire would complement the antitank weapons. The tank platoon leader should select exact firing positions and recommend engagement areas. If faced by enemy infantry, the tanks move to alternate positions with the protection of friendly infantry. These alternate positions allow the tanks to engage to the front as well as the flanks with as little movement as possible. Positions can be selected within buildings and mouseholes can be constructed. After they are withdrawn from the leading edge of the village, the tanks could provide a mobile reserve for the company.

j. **FPFs.** The company plans FPFs to address the biggest threat to his company--the enemy's infantry. When firing an FPF inside a built-up area is necessary, mortars are more effective than artillery. Mortars have a higher angle of fall, which gives them a greater chance of impacting on the street.

k. **Barriers and Obstacles.** The company can easily construct obstacles in a built-up area, but the obstacles must stop enemy vehicles without interfering with the company's own movement in the village. Therefore, the company detonates cratering charges at key

street locations on order and lays mines on the outskirts of the town and along routes the company will not use. It normally emplaces barriers and obstacles in three belts.

l. **Engineers.** The supporting engineers use C4 and other explosives to make firing ports, mouseholes, and demolition obstacles. Based upon his priority of work, the SBCT infantry company commander tells the engineer squad leader to assist each of the infantry platoons preparing the village for defense and to execute the company obstacle plan. The engineer squad leader's mission is to tell the infantrymen exactly where to place the demolitions and how much is needed for the desired effect. He assists in preparation of charges. He also assists in the emplacement and recording of the minefields and the preparation of fighting positions.

m. **Service Support.** Ammunition expenditure is usually high when fighting in a built-up area. To avoid moving around the village with ammunition resupply during the battle, the SBCT infantry company commander directs that ammunition be stockpiled in each occupied platoon and squad position. He also orders the platoons to stockpile firefighting equipment, drinking water, food, and first-aid supplies at each squad position. Other factors the company commander must consider are--

- Resupply.
- Medical evacuation.
- Firefighting.
- Security.

n. **Communications.** To ensure adequate and continuous communications, the company plans and checks redundant verbal and nonverbal communications. It installs a wire net and develops a plan for pyrotechnic signals. It lays backup wire in case vehicles, fires, or the enemy cuts primary lines. The commander also plans for the use of messengers throughout the village.

6-17. DEFENSE OF A BLOCK OR GROUP OF BUILDINGS

An SBCT infantry company normally conducts a defense of a city block or group of buildings as part of an SBCT battalion conducting a sector defense in a built-up area. Company commanders may assign their platoons strongpoints, battle positions, sectors, or any combination of these. An infantry company operating in urban terrain may have to defend a city block or group of buildings in a core periphery or residential area. The company conducts this operation in accordance with the SBCT battalion’s defensive scheme of maneuver. The operation should be coordinated with the action of security forces that are charged with delaying to the front of the company's position. The defense should take advantage of the protection of buildings that dominate the avenues of approach into the MBA. This mission differs from defense of a village in that it is more likely to be conducted completely on urban terrain, without the surrounding open terrain that characterizes the defense of a village. An SBCT infantry company is particularly well suited for this type of mission since the fighting requires the enemy to move infantry into the built-up area to seize and control key terrain. In addition, an SBCT infantry company normally conducts a delay in a built-up area as part of an SBCT battalion conducting a delay in sector. Companies delay conducting ambushes and occupying battle positions in sector, taking maximum advantage of the inherent cover and concealment of the urban terrain and routes within the built-up area.

a. **Task and Purpose.** A well-organized company defense in a built-up area--

- Stops the attack of the enemy on streets and city blocks by using obstacles and fire.
- Destroys the enemy by ambush and direct fire from prepared positions within defensible buildings.
- Ejects the enemy from footholds or remains in place for a counterattack.

b. **Reconnaissance and Security.** The execution of the mission will be more effective if the SBCT infantry company reconnoiters the terrain and prepares obstacles and fire lanes. Patrols should supplement the OPs, mainly during periods of limited visibility. The company should use wire communications. Platoons should have the mission to provide one OP in order to provide spot reports concerning the size, location, direction and rate of movement, and type of enemy assaulting the company sector or battle position.

c. **Task Organization.** METT-TC factors determine how the company commander task-organizes the company to accomplish the mission.

d. **Execution.** The defensive forces should ambush on the avenues of approach, cover the obstacles by fire, and prepare a strong defense inside the buildings. Counterattack forces should be near the front of the company sector in covered and concealed positions with an on-order mission to counterattack. Counterattack forces should have specific instructions as to what their actions will be after the enemy assault has been repelled, for example, to stay in sector or to revert back to reserve status. The company should conduct rehearsals both day and night.

6-18. DEFENSE OF KEY TERRAIN

An SBCT infantry company defends key terrain independently or as part of an SBCT battalion. It may form a perimeter defense around key terrain, such as a public utility (gas, electric, and water plants), communications center (radio and television), government center, command and control facility, and so forth. The infantry company may occupy and defend buildings and other dominant terrain or may establish and operate checkpoints and roadblocks in conjunction with this defense. An SBCT infantry company may defend a traffic circle or similar terrain to prevent the enemy from seizing it. This is characterized by the occupation and defense of the buildings around the traffic circle that control the avenues of approach into and out of the objective area. This defense may be part of conventional operations or may be an adjunct to a mission of stability operations or support operations. In many cases, an unclear enemy situation and extremely restrictive ROE characterize this mission. The facilities previously described are usually sited for their centrality of location and convenience, not for the defensibility of the terrain. Thus, the SBCT infantry company commander often finds his company must defend a piece of terrain that he would rather not have to occupy. The factors of METT-TC determine how to defend the objective.

a. **Task Organization.** The factors of METT-TC determine the task organization of the SBCT infantry company. Figure 6-16 depicts an SBCT infantry company with three rifle platoons and an organic MGS platoon defending an objective (a water purification plant). Upon request, the company commander will receive additional assets based on mission requirements and availability. In the situation depicted in Figure 6-16, the organic weapons of the infantry company are sufficient to accomplish the mission.

b. **Tasks.** The company commander must make a careful mission analysis in order to determine the specified and implied tasks associated with a mission of this type. In the situation shown in Figure 6-16, the SBCT infantry company commander may have determined that in order to defend the objective properly, he needs to deploy platoons on the defensible terrain available. Therefore, he defends urban terrain (left), high ground (top), and low vegetated terrain (right, bottom) all at once. Additionally, some of the tasks listed below may be necessary:

- Provide inner and outer security patrols.
- Establish OPs.
- Establish checkpoints and roadblocks.
- Conduct civilian control and evacuation.
- Conduct coordination with local authorities.
- Prevent collateral damage.
- Supervise specific functions associated with operation of the facility, such as water purification tests, site inspections, and so forth.

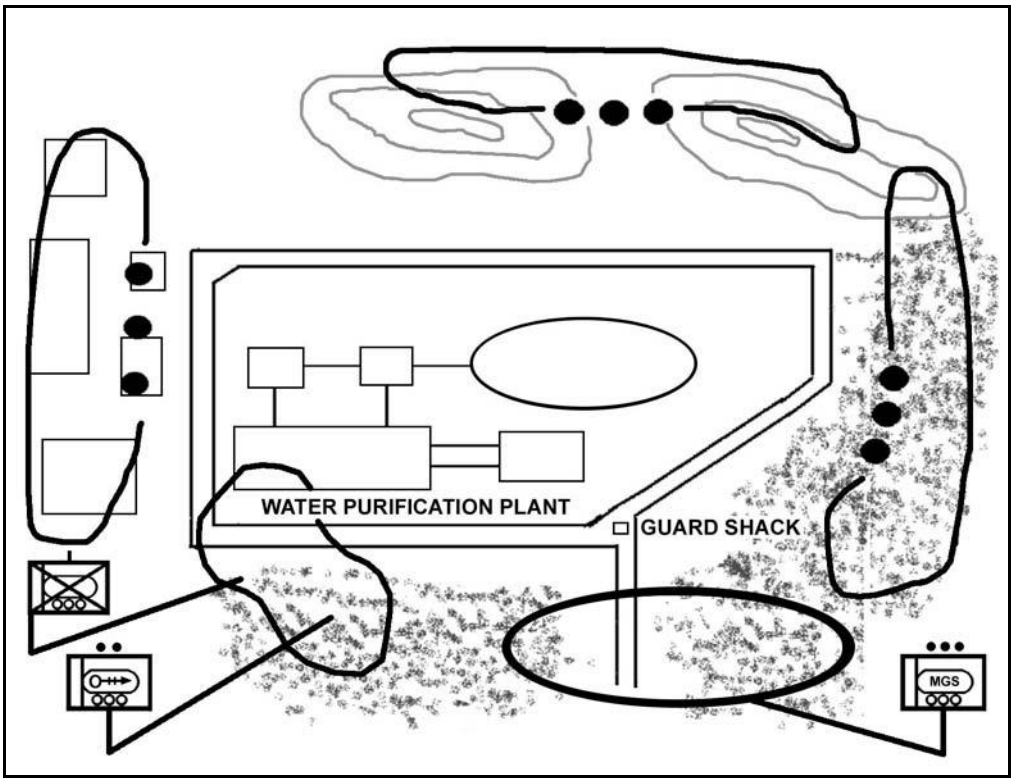


Figure 6-16. Perimeter defense of key terrain.

c. **Execution.** The SBCT infantry company commander normally deploys platoons in a perimeter around the objective in order to dominate key terrain and cover the mounted and dismounted avenues of approach into the objective. (See FM 7-10 for further information on perimeter defense.) The company emplaces machine guns and antitank weapons to cover the dismounted and mounted avenues of approach into the objective, respectively. It normally uses wire obstacles to restrict and deny entry into the objective area and uses antitank and command-detonated mines consistent with the ROE.

Obstacles should be covered by fire and rigged with detection devices and trip flares. The company must be prepared to defend against a direct attack, such as a raid or sabotage against key facilities within the objective (water filtration system, pump station, and so forth). The commander must make an assessment as to the overall importance of the key facilities within the objective and prioritize security requirements. The company commander positions the 60-mm mortar section to provide 360-degree fire support and positions the AT section to engage vehicular targets. If the threat does not require the employment of mortars or AT weapons, the commander can give these sections other tasks.

d. **Other Considerations.** Depending on the mission requirements and threat, the SBCT infantry company commander may have to consider the need for the following:

- Artillery and attack helicopter support.
- ADA assets to defend against air attack.
- Engineer assets to construct obstacles.
- Interpreters to assist in the functioning of the facility and operation of the equipment.
- Military police (MP), civil affairs, and psychological operations (PSYOP) assets for civilian control and liaison.
- Coordination with local police and authorities.
- ICVs or MGSs to act as a mobile reserve or reaction force.

e. **Force Protection.** The SBCT infantry company may be required to conduct a perimeter defense as part of a force protection mission, such as defending a friendly base camp on urban terrain. The same techniques of establishing a perimeter defense described above are used. The company maintains the appropriate level of security (for example, 100 percent, 50 percent, or 30 percent), consistent with the commander's plan and the enemy situation. Additional tasks may include--

- Set up roadblocks and checkpoints.
- Search individuals and vehicles before they enter the camp.
- Maintain a presence as a show of force to the population outside the base camp.
- Conduct inner and outer security patrols.
- Clear urban terrain of any enemy that overwatches the base camp.
- Conduct ambushes to interdict any enemy forces moving toward the base camp.
- Restrict access to locations within the base camp and conduct surveillance of these locations from (or from within) adjacent structures or positions.
- Conduct reaction force duties inside and outside the perimeter of the camp.

6-19. DEFENSE OF AN URBAN STRONGPOINT

A company may be directed to construct a strongpoint as part of a battalion defense (Figure 6-17). In order to do so, it must be augmented with engineer support, more weapons, and CSS resources. A strong point is defended until the unit is formally ordered out of it by the commander directing the defense. Urban areas are easily converted to strongpoints. Stone, brick, or steel buildings provide cover and concealment. Buildings, sewers, and some streets provide covered and concealed routes and can be rubbled to provide obstacles, and telephone systems can provide communications.

a. The specific positioning of units in the strongpoint depends on the commander's mission analysis and estimate of the situation. The same considerations for a perimeter defense apply in addition to the following:

(1) Reinforce each individual fighting position (to include alternate and supplementary positions) to withstand small-arms fire, mortar fire, and artillery fragmentation. Stockpile food, water, ammunition, pioneer tools, and medical supplies in each fighting position.

(2) Support each individual fighting position with several others. Plan or construct covered and concealed routes between positions and along routes of supply and communication. Use these to support counterattack and maneuver within the strongpoint.

(3) Divide the strongpoint into several independent, but mutually supporting, positions or sectors. If one of the positions or sectors must be evacuated or is overrun, limit the enemy penetration with obstacles and fires and support a counterattack.

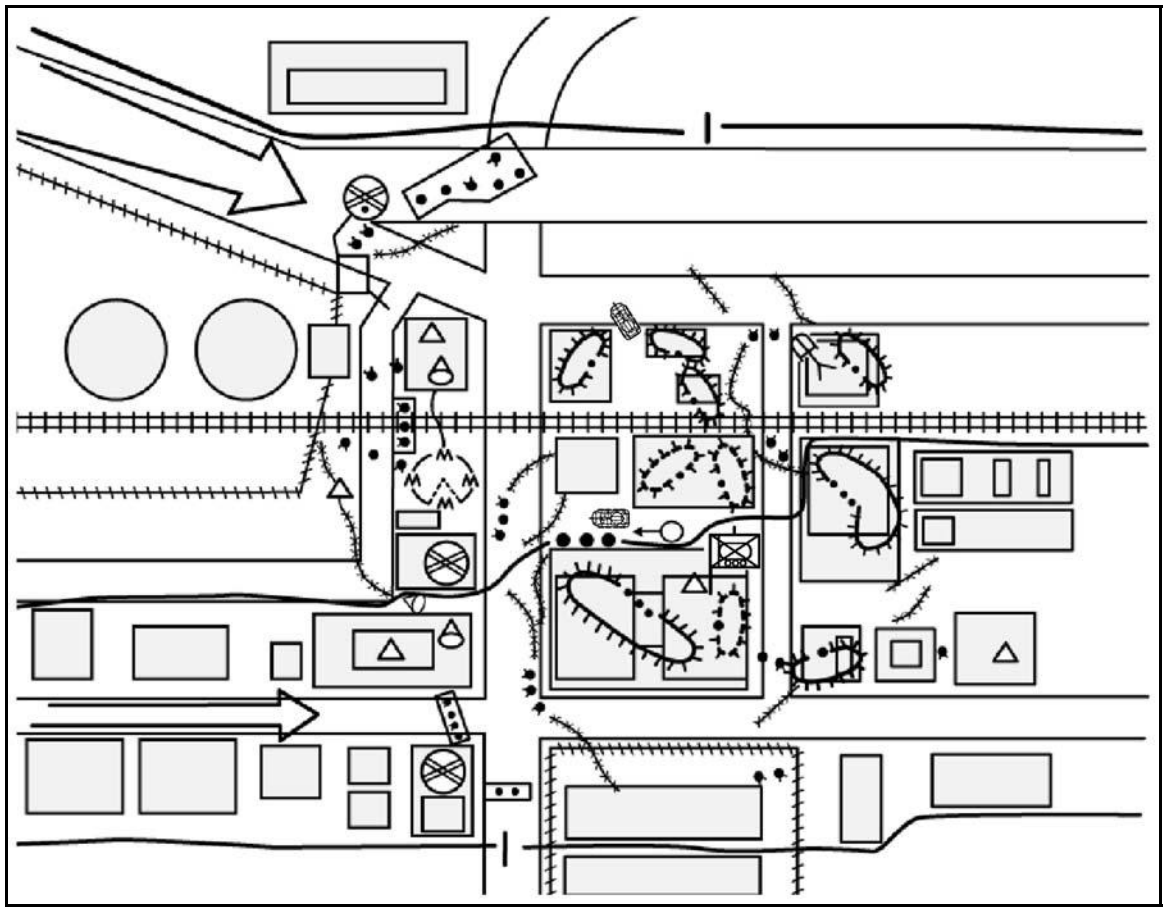


Figure 6-17. Urban strongpoint.

(4) Construct obstacles and minefields to disrupt and canalize enemy formations, to reinforce fires, and to protect the strongpoint from the assault. Place the obstacles and mines out as far as friendly units can observe them, within the strongpoint, and at points in between where they will be useful.

(5) Prepare range cards for each position and confirm them by fires. Plan indirect fires in detail and register them. Indirect fires should also be planned for firing directly on the strongpoint using proximity fuses.

(6) Plan and test several means of communication within the strongpoint and to higher headquarters to include radio, wire, messenger, pyrotechnics, and other signals.

(7) Improve or repair the strongpoint until the unit is relieved or withdrawn. More positions can be built, routes to other positions marked, existing positions improved or repaired, and barriers built or fixed.

b. A strong point may be part of any defensive plan. It may be built to protect vital units or installations, as an anchor around which more mobile units maneuver, or as part of a trap designed to destroy enemy forces that attack it.

6-20. DELAY

The intent of a delay is to slow the enemy, cause casualties, and stop him, where possible, without becoming decisively engaged. This procedure is done by defending, disengaging, moving, and defending again. A company delay is normally conducted as part of the battalion task force's plan. The delay destroys enemy reconnaissance elements forward of the outskirts of the urban area, prevents the penetration of the urban area, and gains and maintains contact with the enemy to determine the strength and location of the main attack by trading space for time. Infantry companies are well suited for this operation, because they can take advantage of the cover and concealment provided by urban terrain and inflict casualties on the enemy at close range. Delays are planned by assigning platoon battle positions, platoon sectors, or both. Figure 6-18 depicts a company delay in urban terrain with the company commander assigning platoon battle positions. Routes are planned to each subsequent battle position or within the sector. Routes also are planned to take advantage of the inherent cover and concealment afforded by urban terrain, such as going through and hugging buildings, using shadows, subsurface areas, and so forth.

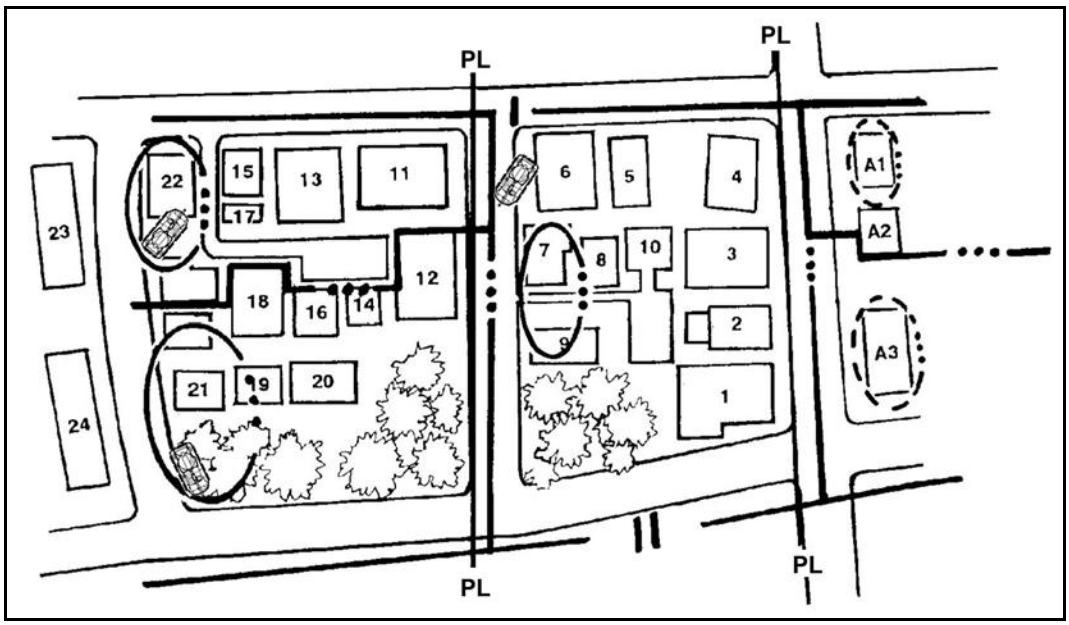


Figure 6-18. Company delay in an urban area.

a. The company's sector should be prepared with obstacles to increase the effect of the delay. Engineers prepare obstacles on main routes but avoid some covered and concealed routes that are known by the friendly troops for reinforcement, displacement, and resupply. These routes are destroyed and obstacles are executed when no longer needed.

b. Antiarmor weapon systems, MGS, ICVs, and other combat vehicles (tanks, BFVs) should be positioned on the outskirts of the urban area to destroy the enemy at maximum range. They should be located in defilade positions or in prepared shelters. They fire at visible targets and then fall back or proceed to alternate positions. Platoons should be assigned sectors from 100 to 300 meters (one to two blocks) wide. If available, they should be reinforced with sensors or GSRs, which can be emplaced on the outskirts or on higher ground to attain the maximum range in the assigned sector. Platoons delay by detecting the enemy early and inflicting casualties on him using patrols, OPs, and ambushes and by taking advantage of all obstacles. Each action is followed by a disengagement and withdrawal. Withdrawals occur on covered and concealed routes through buildings or underground. By day, the defense is dispersed; at night, it is more concentrated. Close coordination and maintaining awareness of the current friendly and enemy situation are critical aspects of this operation.

CHAPTER 7
TACTICAL ENABLING OPERATIONS

This chapter covers tasks the SBCT infantry rifle company may conduct, either on its own or as part of a larger force, to complement or support its primary missions. Enabling operations include reconnaissance, special purpose operations (linkup, stay-behind, relief in place, and passage of lines), and security. The company conducts these operations to set conditions for future operations or to support the current operations of its higher headquarters. The planning, preparation, and execution for these operations are just as important and require the same level of detail as conducting defensive or offensive operations. Enabling operations are conducted mounted, dismounted, or a combination of both.

Section I. RECONNAISSANCE

Reconnaissance is any mission undertaken to obtain information regarding the activities and resources of enemy forces or the physical characteristics of a particular area, using visual observation or other methods. Successful reconnaissance is a focused collection effort, aimed at gathering timely, accurate information about the enemy and the terrain in the area of operations. It is the responsibility of every infantry company commander to conduct reconnaissance, with the goal of gaining the information he needs to ensure the success of his mission. This effort, combined with the COP, will yield a greater situational understanding of the operation or area. In addition, the company may conduct other reconnaissance operations to gather information for higher headquarters. (For a more detailed discussion of reconnaissance operations, refer to FM 17-95.)

7-1. RECONNAISSANCE PLANNING

Reconnaissance planning starts with the company commander's identification of critical information requirements. This process begins while the unit is planning or preparing for an operation and, in many cases, continues during the conduct of the operation. Once the operation is under way, the commander continues to identify information requirements. An example is the need to find an assailable flank or another position of advantage over an identified enemy force while the company develops the situation. In such a situation, the commander may dispatch a platoon or section to find a flank or position from which the company can effectively engage the enemy.

7-2. RECONNAISSANCE EXECUTION

In addition to using the digital information available via the FBCB2 system, the company commander develops the enemy situation through active and passive reconnaissance. Passive reconnaissance includes techniques such as map and photographic reconnaissance and surveillance. Active methods available to the company include mounted and dismounted ground reconnaissance and reconnaissance by fire. Active reconnaissance operations are also classified as stealthy or aggressive, as discussed in the following paragraphs.

a. **Stealthy Reconnaissance.** Stealthy reconnaissance emphasizes procedures and techniques that allow the unit to avoid detection and engagement by the enemy. It is more time-consuming than aggressive reconnaissance. To be effective, stealthy reconnaissance must rely primarily on dismounted elements that make maximum use of covered and concealed terrain. The company's primary assets for stealthy reconnaissance are its infantry squads. (For a more detailed discussion of dismounted patrolling, refer to FM 7-10.)

b. **Aggressive Reconnaissance.** Aggressive reconnaissance is characterized by the speed and manner in which the reconnaissance element develops the situation once contact is made with an enemy force. A unit conducting aggressive reconnaissance uses both direct and indirect fires and movement to develop the situation rapidly. Therefore, the company typically uses mounted reconnaissance. In conducting a mounted patrol, the unit employs the principles of tactical movement to maintain security. The patrolling element maximizes the use of cover and concealment and conducts bounding overwatch as necessary to avoid detection. (For a more detailed discussion of tactical movement, refer to Chapter 3 of this manual.)

7-3. RECONNAISSANCE BEFORE AND AFTER OPERATIONS

To be most effective, reconnaissance must be continuous--conducted before, during, and after operations. Before an operation, the company focuses its reconnaissance effort on filling gaps in its information about the enemy and terrain. (Figure 7-1 shows an example of company reconnaissance prior to an operation.) After an operation, the company normally conducts reconnaissance to enhance SU so it can maintain contact with the enemy and collect information for upcoming operations. Situations in which the company may conduct reconnaissance before or after an operation include the following:

- Reconnaissance by a quartering party of an assembly area and the associated route to it.
- Reconnaissance from the assembly area to the LD and in the vicinity of the LD before an offensive operation.
- Reconnaissance by infantry patrols to probe enemy positions for gaps prior to an attack or infiltration.
- Reconnaissance by infantry patrols to observe forward positions and guide mounted elements to key positions on the battlefield.
- Reconnaissance by dismounted patrols (normally infantry and engineers) to locate bypasses around obstacle belts or to determine the best locations and methods for breaching operations.
- Reconnaissance by infantry patrols of choke points or other danger areas in advance of the remainder of the company.
- Reconnaissance by mounted patrols to observe forward positions or to clear a route to a forward position.
- Reconnaissance of defensive positions or engagement areas prior to the conduct of the defense.
- Reconnaissance by mounted or dismounted patrols as part of security operations to secure friendly obstacles, clear possible enemy OPs, or cover areas not observable by stationary OPs.

- Reconnaissance by mounted or dismounted patrols to maintain contact with adjacent units.
- Reconnaissance by mounted or dismounted patrols to maintain contact with enemy elements.

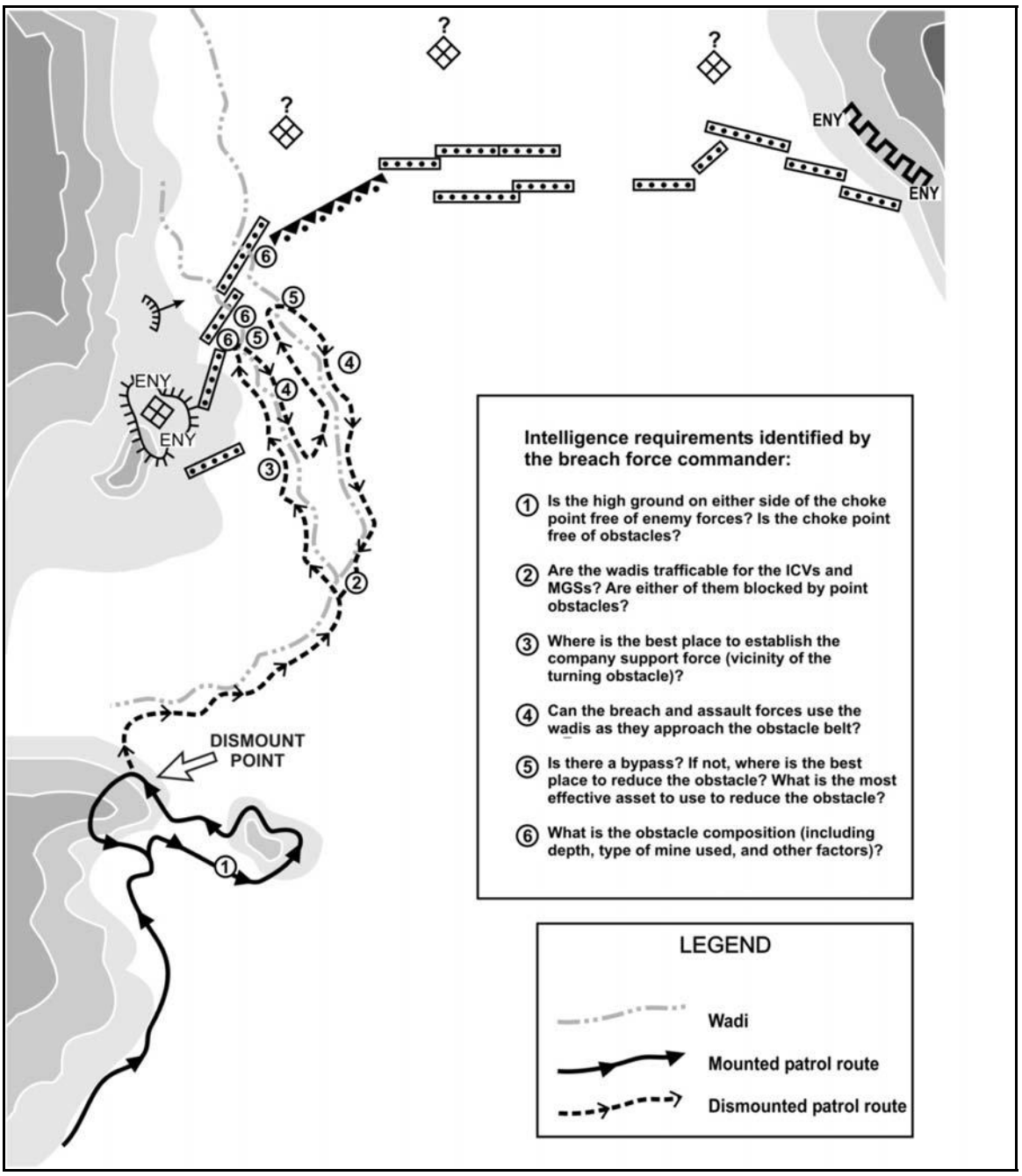

ENY
ENY
ENY
ENY
DISMOUNT POINT
Intelligence requirements identified by the breach force commander:
1 Is the high ground on either side of the choke point free of enemy forces? Is the choke point free of obstacles?
2 Are the wadis trafficable for the ICVs and MGSs? Are either of them blocked by point obstacles?
3 Where is the best place to establish the company support force (vicinity of the turning obstacle)?
4 Can the breach and assault forces use the wadis as they approach the obstacle belt?
5 Is there a bypass? If not, where is the best place to reduce the obstacle? What is the most effective asset to use to reduce the obstacle?
6 What is the obstacle composition (including depth, type of mine used, and other factors)?
LEGEND
Wadi
Mounted patrol route
Dismounted patrol route

Figure 7-1. SBCT infantry company commander identifying intelligence requirements and using patrols to conduct reconnaissance.

7-4. RECONNAISSANCE DURING OPERATIONS

During offensive operations, company reconnaissance normally focuses on fighting for information about the enemy and the terrain, with the primary goal of gaining an advantage over the enemy. The company conducts this type of reconnaissance during actions on contact. As the company develops the situation, the commander may dispatch mounted or dismounted patrols to identify positions of advantage or to acquire an enemy force. The information gained by the company while in contact is critical not only to the success of its own mission but also to the success of its higher headquarters. (Refer to Chapter 4 for discussion of actions on contact.)

7-5. FORMS OF RECONNAISSANCE

In addition to reconnaissance performed as part of another type of operation, there are three forms of reconnaissance that are conducted as distinct operations: route reconnaissance, zone reconnaissance, and area reconnaissance.

a. **Positioning of Subordinate Elements.** In conducting a route, zone, or area reconnaissance, the company employs a combination of mounted and dismounted elements as well as reconnaissance by direct and indirect fires. Based on his evaluation of METT-TC factors, the company commander establishes the role of organic elements and support assets within his scheme of maneuver.

b. **Focus of the Reconnaissance.** In planning for route, zone, or area reconnaissance, the company commander must determine the focus of the mission, identifying whether the reconnaissance will orient on the terrain or on the enemy force. It is then essential that he provide the company with clear guidance on the focus of the reconnaissance. In a force-oriented reconnaissance operation, the critical task is simply to find the enemy and gather information on him; terrain considerations of the route, zone, or area are only a secondary concern. The company is generally able to move more quickly in force-oriented reconnaissance than in terrain-oriented reconnaissance.

c. **Conduct of the Reconnaissance.** The following paragraphs examine the specifics of route, zone, and area reconnaissance:

(1) ***Route Reconnaissance.*** A route reconnaissance is a directed effort to obtain detailed information on a specific route as well as on all terrain from which the enemy could influence movement along that route. Route reconnaissance may be oriented on a specific area of movement, such as a road or trail, or on a more general area, like an axis of advance.

(2) ***Zone Reconnaissance.*** A zone reconnaissance is a directed effort to obtain detailed information concerning all routes, terrain, enemy forces, and obstacles (including areas of chemical and radiological contamination) within a zone that is defined by specific boundaries. The company normally conducts zone reconnaissance when the enemy situation is vague or when the company requires information concerning cross-country trafficability. As in route reconnaissance, the SBCT and SBCT infantry battalion commanders' intents as well as METT-TC dictate the company's actions during a zone reconnaissance.

(a) The following tasks are normally critical components of the operation:

- Find and report all enemy forces within the zone.
- Reconnoiter specific terrain within the zone.
- Report all reconnaissance information.

(b) Time permitting, the commander may also direct the company to accomplish the following tasks as part of a zone reconnaissance:

- Reconnoiter all terrain within the zone.
- Inspect and classify all bridges.
- Locate fords or crossing sites near all bridges.
- Inspect and classify all overpasses, underpasses, and culverts.
- Locate and clear all mines, obstacles, and barriers (within capability).
- Locate bypasses around built-up areas, obstacles, and contaminated areas.

(3) ***Area Reconnaissance.*** Area reconnaissance is a directed effort to obtain detailed information concerning the terrain or enemy activity within a prescribed area. The area can be any location that is critical to the unit's operations. Examples include easily identifiable areas covering a fairly large space (such as towns or military installations), terrain features (such as ridge lines, wood lines, or choke points), or a single point (such as a bridge or a building). The critical tasks of the area reconnaissance are the same as those associated with zone reconnaissance.

Section II. LINKUP

Linkup is an operation that entails the meeting of friendly ground forces (or their leaders or designated representatives). The company conducts linkup activities independently or as part of a larger force. Within a larger unit, the company may lead the linkup force.

7-6. LINKUP SITUATIONS

Linkup may occur in, but is not limited to, the following situations:

- Advancing forces reaching an objective area previously secured by air assault, airborne, or infiltrating forces.
- Units conducting coordination for a relief in place.
- Cross-attached units moving to join their new organization.
- A unit moving forward during a follow and support mission with a fixing force.
- A unit moving to assist an encircled force.
- Units converging on the same objective during the attack.
- Units conducting a passage of lines.

7-7. LINKUP PLANNING

The plans for a linkup must be detailed and must cover the following items:

a. **Site Selection.** Identify both a primary and an alternate site. These sites should be easy to find at night, have cover and concealment, and be off the natural lines of drift. They must also be easy to defend for a short time and offer access and escape routes.

b. **Recognition Signals.** Far and near recognition signals are needed to keep friendly units from firing on each other. Although the units conducting the linkup exchange radio frequencies and call signs, they should avoid radio communications as a means of recognition due to the threat of compromise. Instead, visual and voice recognition signals should be planned:

(1) One technique is a sign and countersign exchanged between units. This can be a challenge and password or a number combination for a near signal. It can also be an exchange of signals using flashlights, chemical lights, infrared lights, or VS-17 panels for far recognition signals per tactical SOPs.

(2) Another technique is to place other signals on the linkup site. Examples are stones placed in a prearranged pattern, markings on trees, and arrangements of wood or tree limbs. These mark the exact location of the linkup. The first unit to the linkup site places the sign and positions the contact company to watch it. The next unit to the site then stops at the signal and initiates the far recognition signal.

c. **Indirect Fires.** Indirect fires are always planned. They support the movement by masking noise, deceiving the enemy of friendly intent, and distracting the enemy. Plan indirect fires along the infiltration lanes and at the linkup sites to support in case of enemy contact.

d. **Direct Fires.** Direct fire planning must prevent fratricide. Restrictive fire lines (RFLs) control fires around the linkup site. Phase lines may serve as RFLs, which are adjusted as two forces approach each other.

e. **Contingency Plans.** The unit tactical SOP or the linkup annex to the OPORD must cover the following contingencies:

- Enemy contact before linkup.
- Enemy contact during linkup.
- Enemy contact after linkup.
- How long to wait at the linkup site.
- What to do if some elements do not make it to the linkup.
- Alternate linkup points and rally points.

7-8. STEPS OF THE LINKUP OPERATION

The linkup procedure begins as the unit moves to the linkup point. If using the radio, the unit reports its location using phase lines, checkpoints, or other control measures. Each unit sends a small contact team or element to the linkup point; the remainder of the unit stays in the linkup rally point. The leader fixes individual duties of the contact elements and coordinates procedures for integrating the linkup units into a single linkup rally point. Full rehearsals are conducted if time permits. Figure 7-2 depicts a company linkup between the 3d Platoon--which infiltrated early, conducted the reconnaissance of the objective, and established the ORP--and the rest of the company, which infiltrated later.

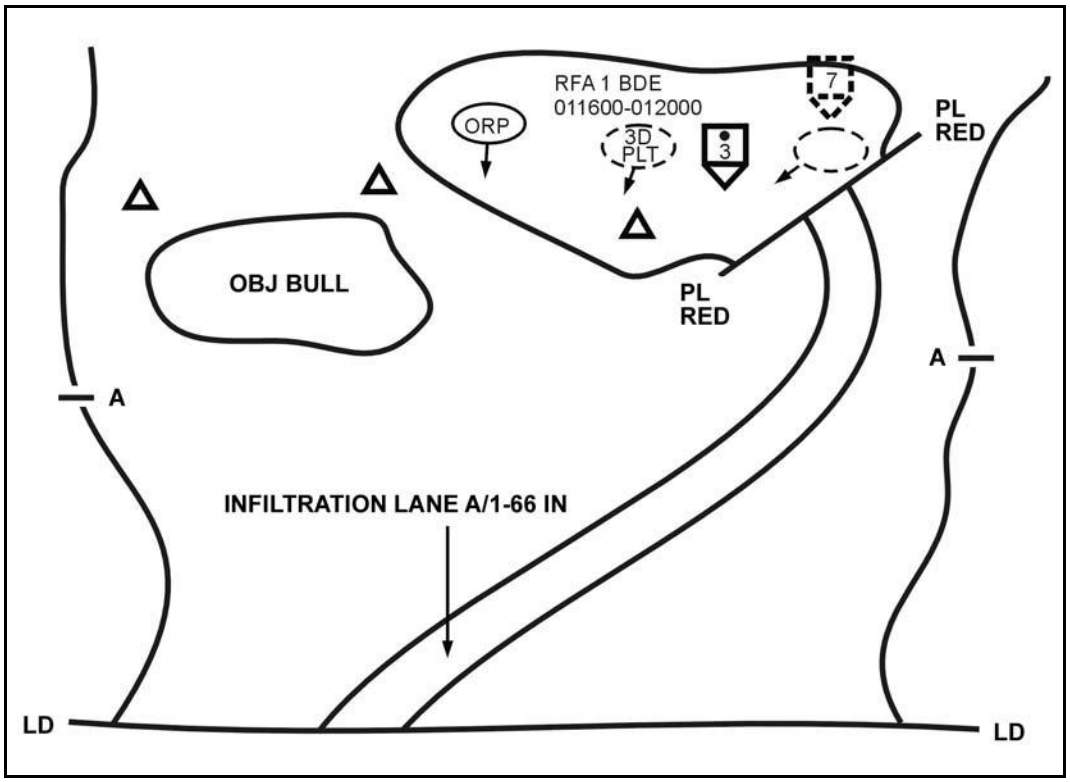


Figure 7-2. SBCT infantry company linkup.

a. The unit stops and sets up a linkup rally point about 300 meters from the linkup point. A contact team is sent to the linkup point; it locates the point and observes the area. If the unit is the first at the site, it clears the immediate area and marks the linkup point, using the agreed-upon recognition signal. It then takes up a covered and concealed position to watch the linkup point.

b. The next unit approaching the site repeats the actions above. When its contact team arrives at the site and spots the recognition signal, they then initiate the far recognition signal, which is answered by the first company, and they exchange near recognition signals.

c. The contact teams coordinate the actions required to link up the units, such as to move one unit to the other unit's rally point, or to continue the mission.

d. The linkup consists of three steps:

(1) ***Far Recognition Signal.*** During this step, the units or elements involved in the linkup should establish communications before they reach direct fire range, if possible. The lead element of each linkup force should operate on the same frequency as the other friendly force.

(2) ***Coordination.*** Before initiating movement to the linkup point, the forces must coordinate necessary tactical information, including the following:

- The known enemy situation.
- Number and types of friendly vehicles.
- Disposition of stationary forces (if either unit is stationary).
- Routes to the linkup point and rally point (if used).
- Fire control measures.

- Near recognition signal(s).
- Communications information.
- CS coverage.
- CSS responsibilities and procedures.
- Finalized location of the linkup point and rally point (if used).
- Any special coordination, such as that covering maneuver instructions or requests for medical support.

(3) ***Movement to the Linkup Point and Linkup.*** All units or elements involved in the linkup must enforce strict fire control measures to help prevent fratricide; linkup points and RFLs must be easily recognizable by moving and converging forces. Linkup elements take these actions:

- Conduct far recognition using FM radio.
- Conduct short-range (near) recognition using the designated signal.
- Complete movement to the linkup point.
- Establish local security at the linkup point.
- Conduct additional coordination and linkup activities as necessary.

Section III. SECURITY OPERATIONS

The company may conduct security operations to the front, flanks, or rear of the SBCT force. Security operations provide early and accurate warning of enemy operations and provide the protected force with time and maneuver space to react to the enemy and develop the situation so that the commander can employ the protected force effectively. (For additional information on security operations, refer to FM 17-95.)

7-9. FORMS OF SECURITY OPERATIONS

The four forms of security operations are screen, guard, covering force, and area security. Screen, guard, and cover entail deployment of progressively higher levels of combat power and provide increasing levels of security for the main body. Area security preserves a higher commander's freedom to move his reserves, position fire support assets, conduct command and control operations, and provide for sustainment operations. The company can conduct screen or guard operations on its own. It participates in area security missions and covering force operations only as part of a larger element. The company always provides its own local security.

NOTE: All forces have an inherent responsibility to provide for their own local security. Local security includes OPs, local security patrols, perimeter security, and other measures taken to provide close-in security for the force.

7-10. PLANNING CONSIDERATIONS

Security operations require the commander assigning the security mission and the security force commander to address a variety of special operational factors. These planning considerations are discussed in the following paragraphs:

a. **Augmentation of Security Forces.** When it is assigned to conduct a screen or guard mission, the company may receive additional combat, CS, and CSS elements. Attachments may include, but are not limited to, the following:

- A reconnaissance platoon.
- A mortar section or platoon.
- RSTA assets.

b. **Enemy-Related Considerations.** Security operations require the company to deal with a unique set of enemy considerations. For example, the array of enemy forces (and the tactics that enemy commanders use to employ them) may be different from those for any other tactical operation the company conducts. Additional enemy considerations that may influence company security operations include, but are not limited to, the following:

(1) The presence or absence of specific types of forces on the battlefield including--
- Insurgent elements (not necessarily part of the enemy force).
- Enemy reconnaissance elements of varying strength and capabilities (at divisional, brigade, or other levels).
- Enemy security elements (such as forward patrols).
- Enemy stay-behind elements or enemy elements that have been bypassed.

(2) Possible locations that the enemy will use to employ his tactical assets including--
- Reconnaissance and infiltration routes.
- OP sites for surveillance or indirect fire observers.

(3) Availability and anticipated employment of other enemy assets including--
- Surveillance devices, such as radar devices or UAVs.
- Long-range rocket and artillery assets.
- Helicopter and fixed-wing air strikes.
- Elements capable of dismounted insertion or infiltration.
- Mechanized forward detachments.

c. **Time the Security Operation is Initiated.** The time by which the screen or guard must be set and active influences the company's method of deploying to the security area as well as the time it begins the deployment.

d. **Reconnaissance of the Security Area.** The company commander uses a thorough analysis of METT-TC factors to determine the appropriate methods and techniques for the company to use in accomplishing this critical action.

NOTE: The company commander must make every effort to conduct his own reconnaissance of the security area he expects the company to occupy, even when the operation is preceded by a zone reconnaissance by other SBCT battalion elements.

e. **Movement to the Security Area.** In deploying elements to an area for a stationary security mission, the company commander must deal with the competing requirements of establishing the security operation quickly to meet mission requirements and of providing the necessary level of local security in doing so. The company can move to the security area using one of two basic methods: a tactical road march or a movement to contact. Either method should be preceded by a zone reconnaissance by the SBCT infantry battalion reconnaissance platoon. The following paragraphs examine considerations and procedures for the two methods of movement.

(1) ***Tactical Road March.*** The company conducts a tactical road march to an RP behind the security area to occupy their initial positions. This method of deployment is

faster than a movement to contact, but less secure. It is appropriate when enemy contact is not expected or when time is critical.

(2) ***Movement to Contact.*** The company conducts a movement to contact from the LD to the security area. This method is slower than a tactical road march, but it is more secure. It is appropriate when time is not critical and either enemy contact is likely or the situation is unclear due to the company commander's lack of RSTA assets.

f. **Location and Orientation of the Security Area.** The main body commander determines the location, orientation, and depth of the security area in which he wants the security force to operate. The security force commander conducts a detailed analysis of the terrain in the security area. He then establishes his initial dispositions (usually a screen line, even for a guard mission) as far forward as possible, on terrain that allows clear observation of avenues of approach into a sector. The initial screen line is depicted as a phase line and sometimes represents the forward line of troops (FLOT). As such, the screen line may be a restrictive control measure for movement. This requires the company commander to conduct all necessary coordination if he decides to establish OPs or to perform reconnaissance forward of the line.

g. **Initial OP Locations.** The company commander may deploy OPs to ensure effective surveillance of the sector and designated NAIs. He designates initial OP locations on or behind the screen line. He should provide OP personnel with specific orientation and observation guidance, including, at a minimum, the primary orientation for the surveillance effort during the conduct of the screen. Once set on the screen line, the surveillance elements report their locations. The element that occupies each OP always retains the responsibility for changing the location in accordance with tactical requirements and the commander’s intent and guidance for orientation. Dismounted OPs maximize stealth.

h. **Width and Depth of the Security Area.** The company sector is defined by lateral boundaries extending out to an LOA (the initial screen line) forward of a rear boundary. The company’s ability to maintain depth through the sector decreases as the screened or guarded frontage increases.

i. **Special Requirements and Constraints.** The company commander must specify any additional considerations for the security operation, including, but not limited to, the following:

- All requirements for observing NAIs, as identified by the SBCT battalion.
- Any additional tactical tasks or missions that the company and subordinate elements must perform.
- Engagement and disengagement criteria for all company elements.

j. **Indirect Fire Planning.** The company commander conducts indirect fire planning to integrate artillery and mortar assets into the security mission. A wide sector may require him to position mortar assets where they can provide effective coverage of the enemy’s most likely axis of attack or infiltration route, as determined in his analysis of the enemy. The commander can position the mortars so that up to two thirds of their maximum range lies forward of the initial screen line. The company FSO assists the commander in planning artillery fires to adequately cover any gaps in mortar coverage.

k. **Positioning of Command and Control and CSS Assets.** The company commander normally positions himself where he can observe the most dangerous enemy axis of attack or infiltration route, with the XO positioned on the second most critical axis

or route. The XO positions the company CP (if used) in depth and, normally, centered in sector. This allows the CP to provide control of initial movement, to receive reports from the screen or guard elements, and to assist the commander in more effectively facilitating command and control. Company trains are positioned behind masking terrain, but they remain close enough for rapid response. The trains are best sited along routes that afford good mobility laterally and in depth. Patrols may be required to cover gaps between the OPs. The company commander tasks elements to conduct either mounted or dismounted patrols, as required.

l. **Coordination.** The company commander must conduct adjacent unit coordination to ensure there are no gaps in the screen or guard and to ensure smooth execution of the company's rearward passages of lines, if required. Additionally, he must coordinate the company's follow-on mission.

m. **CSS Considerations.** The company commander's primary consideration for CSS during security operations is coordinating and conducting resupply of the company, especially for Class III and V supplies. (One technique is for the commander to pre-position Class III and Class V vehicles at the company's successive positions.) In addition to normal considerations, however, the commander may acquire other responsibilities in this area, such as arranging CSS for a large number of attached elements or coordinating resupply for a subsequent mission. The company's support planning can be further complicated by a variety of factors. To prevent these factors from creating outright tactical problems, the company must receive requested logistical support, such as additional medical evacuation vehicles, from the controlling SBCT battalion.

n. **Follow-On Missions.** The complexities of security missions, combined with normal operational requirements (such as troop-leading procedures or on-the-move [OTM] planning, engagement area development, rest plans, and CSS activities), can easily rob the company commander of the time he needs for planning and preparation of follow-on missions. He must address these competing demands in his initial mission analysis to ensure that the company and its leaders can adequately meet all requirements for current and future operations. If METT-TC factors permit, for example, the company commander can shift his focus to preparing for follow-on missions once preparations for the security mission are complete (or satisfactorily under way). Another technique is to detach the XO, with support personnel and vehicles, to prepare for follow-on missions. The XO's party can handle such operational requirements as reconnaissance, coordination, and development of follow-on engagement areas and BPs.

7-11. SCREEN

A screen primarily provides early warning. The screening force observes, identifies, and reports enemy actions to the main defense. A screen provides the least amount of protection of any security mission. Generally, a screening force engages and destroys enemy reconnaissance elements within its capabilities but otherwise fights only in self-defense. It normally does not have the combat power to develop the situation if FBCB2 has not provided sufficient input.

a. **Purposes.** A screen is appropriate to cover gaps between forces, the exposed flanks or rear of stationary and moving forces, or the front of a stationary formation. It is used when the likelihood of enemy contact is remote, the expected enemy force is small,

or the friendly main body needs only a minimum amount of time, once it is warned, to react effectively. Screening is largely accomplished by establishing a series of OPs and conducting patrols to ensure adequate surveillance of the assigned sector. Purposes of the screen include the following:

- To prevent enemy ground elements from passing through the screen undetected or unreported.
- To maintain continuous surveillance of all avenues of approach into the sector under all visibility conditions.
- To destroy or repel enemy reconnaissance elements within capability.
- To locate the lead elements of each enemy advance guard force and determine their direction of movement.
- To maintain contact with enemy forces and report any activity in sector.
- To impede and harass the enemy within capability while displacing.
- To maintain contact with the enemy main body and any enemy security forces operating on the flanks of friendly forces.

b. **Stationary Screen.** When conducting a stationary screening mission, the company commander first analyzes infiltration routes into the screen sector, then assigns surveillance responsibility to the company's subordinate elements. He designates locations of OPs, which should be in depth through the sector. Sections within the company normally man the OPs. The commander identifies the enemy's likely axes of attack or infiltration routes; if necessary, he identifies additional control measures (such as NAIs, phase lines, TRPs, or checkpoints) to assist in movement control and in tracking of enemy elements. The company conducts mounted and dismounted patrols to reconnoiter areas it cannot observe from OPs. Once an OP detects the enemy, the screening force normally engages him with indirect fires. This prevents the enemy from penetrating the screen line and does not compromise the location of the OP. Within its capability, the screening force may destroy enemy reconnaissance assets with direct fires if indirect fires cannot accomplish the task. (For additional details, refer to the discussion of actions against enemy reconnaissance elements in paragraph 7-12c(2).) The screening force also impedes and harasses other enemy elements, primarily through the use of indirect fires. If enemy pressure threatens the security of the screening force, the unit normally reports the situation and requests permission to displace to a subsequent screen line.

c. **Moving Screen.** The company can conduct a moving screen to the flanks or rear of the screened force. The movement of the screen is keyed to time and distance factors associated with the movement of the friendly main body.

(1) ***Moving Flank Screen.*** Responsibilities for a moving flank screen begin at the front of the main body's lead combat element and end at the rear of the protected force. In conducting a moving flank screen, the company either occupies a series of temporary OPs along a designated screen line or, if the protected force is moving too fast, continues to move while maintaining surveillance and preparing to occupy a designated screen line. There are four basic methods of controlling movement along the screened flank. The screening force may use one or more of these methods as the speed of movement of the protected force changes or contact is made.

(a) *Alternate Bounds by Individual OP*. The screening element uses this method when the protected force is advancing slowly and enemy contact is likely along the screen line.

Designated elements of the screening force move to and occupy new OPs as dictated by the enemy situation and the movement of the main body. Other elements remain stationary, providing overwatch and surveillance, until the moving elements establish their new positions; these elements then move to new positions while the now-stationary elements provide overwatch and surveillance. This sequence continues as needed. The method of alternate bounding by individual OP is secure but slow.

(b) *Alternate Bounds by Unit*. The screening element uses this method when the protected force is advancing slowly and enemy contact is likely along the screen line. Designated elements of the screening force move and occupy new positions as dictated by the enemy situation and the movement of the main body. Other elements remain stationary, providing overwatch and surveillance, until the moving elements establish their new positions; these elements then move to new positions while the now-stationary elements provide overwatch and surveillance. This sequence continues as needed. The method of alternate bounding by unit is secure but slow.

(c) *Successive Bounds*. The screening element uses this method when FBCB2 is not detecting the total tactical environment and enemy contact is possible. During this time, the main body makes frequent short halts during movement. Each platoon of the screening force occupies a designated portion of the screen line each time the main body stops. When main body movement resumes, the platoons move simultaneously, retaining their relative position as they move forward.

(d) *Continuous Marching*. The screening element uses this method when the main body is advancing rapidly at a constant rate and enemy contact is not likely. The screening force maintains the same rate of movement as the main body while at the same time conducting surveillance as necessary. The screening force plans stationary screen lines along the movement route but occupies them only as necessary to respond to enemy action.

(2) ***Moving Rear Screen.*** The screening force may establish a moving rear screen to the rear of a main body force conducting an offensive operation or between the enemy and the rear of a force conducting a retrograde operation. In either case, movement of the screen is keyed to the movement of the main body or to the requirements of the enemy situation. The operation is normally controlled by movements to a series of phase lines.

7-12. GUARD

A guard force protects the friendly main body either by fighting to gain time (while simultaneously observing the enemy and reporting pertinent information) or by attacking, defending, or delaying the enemy to prevent him from observing the main body and engaging it with direct fires. There are three types of guard operations (advance guard, flank guard, and rear guard). They can be conducted in support of either a stationary or a moving friendly force. The guard force differs from a screening force in that it contains sufficient combat power to defeat, repel, or fix the lead elements of an enemy ground force before the enemy can engage the main body with direct fires. In addition, the guard force normally deploys over a narrower front than does a comparably sized screening force, allowing greater concentration of combat power. The guard force routinely engages enemy forces with both direct and indirect fires and normally operates within range of the main body's indirect fire weapons.

a. **Purposes.** The purposes of the guard, in addition to those listed in the earlier discussion of the screen, include the following:

- Destroy or repel all enemy reconnaissance elements.
- Fix and defeat enemy security elements.
- Cause the enemy main body to deploy and then report its direction of travel to the friendly main body commander.

b. **Types.** The following discussion covers operational considerations for advance guards, flank guards, and rear guards.

(1) ***Advance Guard.*** An advance guard for a stationary force is defensive in nature. The company defends or delays in accordance with the intent of the main body commander. An advance guard for a moving force is offensive in nature. The company normally conducts an offensive advance guard mission during a movement to contact as part of an SBCT battalion. The role of the advance guard is to maintain the freedom of maneuver of the supported SBCT battalion by providing early warning of enemy activity and by finding, fixing, and destroying enemy reconnaissance and security elements. (For more details on advance guard operations, refer to the discussion of movement to contact in Chapter 4, Section VI, of this manual.)

(2) ***Flank Guard.*** A flank guard protects an exposed flank of the main body. A flank guard is similar to a flank screen except that both OPs and defensive positions are planned. The company may conduct a moving flank guard during an attack or a movement to contact. In conducting a moving flank guard, the company normally occupies a series of BPs along the protected flank. It must maintain orientation both to the front (to perform its overwatch role and to maintain its own security) and to the protected flank. It must also maintain a sufficient distance from the main body to prevent the enemy from engaging the main body with long-range direct fires before early warning can be sent. (Paragraph 7-12d focuses on execution of a moving flank guard.)

(3) ***Rear Guard.*** The rear guard protects the rear of the main body as well as all CS and CSS elements within the main body. This may occur during offensive operations when the main body breaks contact with the FLOT or during retrograde operations. Rear guards may be deployed behind either moving or stationary main bodies. (The rear guard for a moving force displaces to successive BPs along phase lines or delay lines in depth as the main body moves.) During retrograde operations, the rear guard normally deploys its elements across the entire sector behind the main body's forward maneuver units.

c. **Stationary Guard.** As noted, a stationary guard mission is, at least initially, defensive in nature. The guard force normally employs OPs to accomplish all surveillance requirements of the guard mission. The company must be prepared to conduct actions against the enemy's main body and security elements as well as his reconnaissance forces. The following paragraphs discuss considerations for operations involving these enemy elements.

(1) ***Actions against Main Body and Security Element.***. Once contact is made with an enemy main body or security force, the guard force attacks, defends, or delays in accordance with the enemy situation and the intent of the commander of the protected force. (Chapter 5 of this manual discusses considerations for the defense.)

(2) ***Actions against Reconnaissance Elements.*** When it must execute counterreconnaissance tasks, the company normally task-organizes into a surveillance element (normally occupying a screen line) and an attack element. Each element has

specific responsibilities but must be prepared to work effectively with the other to ensure success of the operation:

(a) *Surveillance Element and Surveillance Sectors*. The commander must assign clear responsibilities for surveillance of identified avenues of approach and designated NAIs. The surveillance element is tasked with detecting, reporting, and maintaining contact with the enemy in the assigned surveillance sector. In addition, the surveillance element is responsible for passing the enemy force off to the attack element for destruction.

(b) *Attack Element*. In this role, the company's MGS platoon can serve as the primary direct fire killing asset and remain responsive to the commander. The attack element occupies hide positions, BPs, or attack-by-fire positions along enemy avenues of approach. Once alerted by the surveillance force, it moves into position (if necessary) and destroys the approaching enemy element. The attack element is responsible for direct fire planning and engagement area development in support of the commander's plan. It must rehearse all necessary movement to the planned fighting positions and report the required movement times to the commander.

(c) *Relationship of Surveillance and Attack Elements*. The company's surveillance element must track locations of any enemy vehicles moving through the sector while the attack element moves into position. Once the attack element is set and can observe the enemy, the surveillance element completes target handover. This operation requires continuous communication between the two subordinate elements conducting the handover as well as close control by the company commander or XO. In close terrain, the surveillance and attack elements must be positioned much closer together than in open terrain. This helps the elements to maintain visual contact and achieve target handover at the appropriate time. Figure 7-3, page 7-16, illustrates a company stationary guard operation.

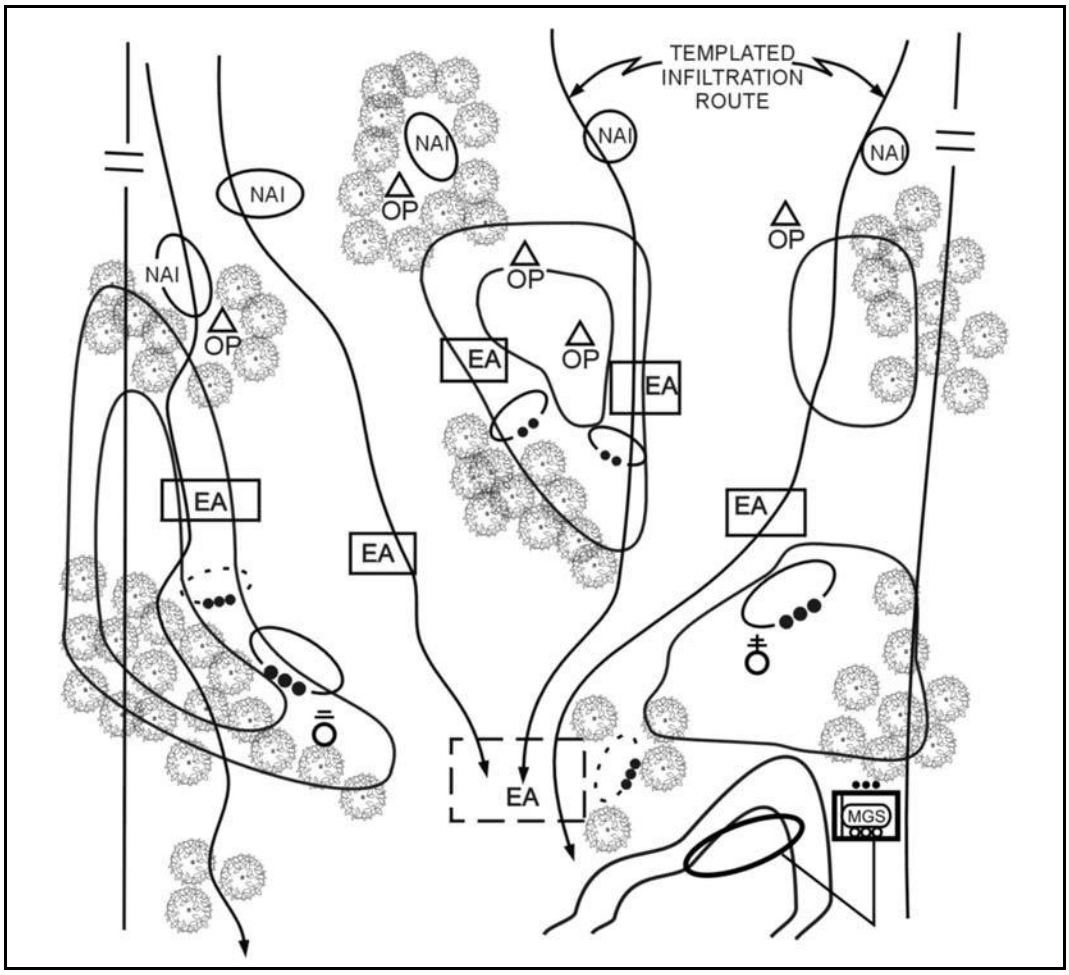


Figure 7-3. Stationary guard with OPs forward.

d. **Moving Flank Guard.** Many of the considerations for a moving flank screen apply to the execution of a moving flank guard. However, unlike a moving flank screen that occupies a series of OPs, the flank guard force plans to occupy a series of defensive positions. In conducting a moving flank guard, the company either occupies a series of temporary BPs along the protected flank or, if the protected force is moving too quickly, continues to move along the protected flank. During movement, the company maintains surveillance to the protected flank of the SBCT while preparing to occupy designated BPs based on enemy activity or on the movement of the protected force. There are three basic methods of controlling movement along the guarded flank:

- Alternate bounds by unit.
- Successive bounds by unit.
- Continuous marching.

NOTE: These are identical to the methods for controlling movement along a screened flank except that the company and its platoons occupy designated defensive positions instead of OPs.

The lead element of a moving flank guard must accomplish three tasks. It must maintain contact with the protected force, reconnoiter the flank guard's route of advance, and reconnoiter the zone between the protected force and the flank guard's advance. The rest of the flank guard marches along the route of advance and occupies BPs to the protected flank as necessary. Figure 7-4 illustrates a company flank guard operation during a movement to contact. One platoon is employed to provide security to the front and maintain contact with the SBCT main body; the other two platoons are oriented to the protected flank. The illustration shows BPs the platoons may occupy to respond to the approaching enemy force.

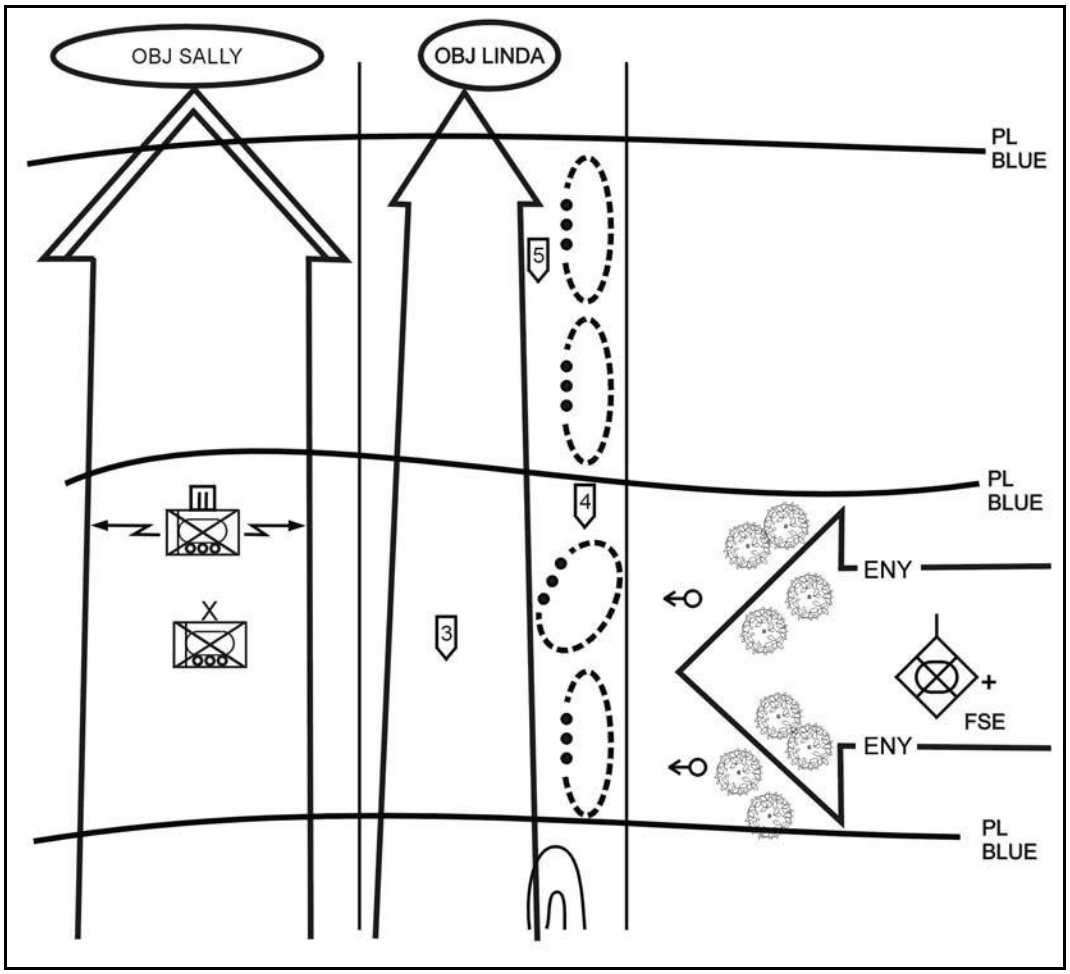


Figure 7-4. SBCT infantry company guarding the SBCT flank during movement to contact.

7-13. LOCAL SECURITY

The company is responsible for maintaining its own security at all times. It does this by deploying mounted and dismounted OPs and patrols to maintain surveillance and by employing appropriate OPSEC measures. In addition to maintaining security for its own elements, the company may implement local security for other units as directed by the SBCT battalion infantry commander. Examples of such situations include, but are not limited to, the following:

- Provide security for engineers as they emplace obstacles or construct survivability positions in the company BP.
- Secure LZs.
- Establish mounted or dismounted OPs to maintain surveillance of enemy infiltration and reconnaissance routes.
- Conduct patrols to cover gaps in observation and to clear possible enemy OPs from surrounding areas.

Section IV. VEHICLE LAAGER

On the battlefield of the future there will be situations based on METT-TC that require the SBCT leadership and its soldiers to be separated from their vehicles. The organic ICVs of the SBCT infantry rifle company are for transporting the infantry squads to the fight and providing tactical flexibility while tailoring the soldiers' loads through a "mobile arms room" concept. There is also an MGS platoon that supports the infantry fight with long-range precision fires. The MGS is a *fighting vehicle* but is not a Bradley or a tank and should not be employed in the traditional sense of a fighting vehicle. Flexibility is the key to this force. SBCT leadership should consider the following when the operational situation dictates that their vehicles be placed in a vehicle laager site.

7-14. PLANNING CONSIDERATIONS

To avoid the enemy's detection or strength, as well as to conduct reconnaissance, the commander may place his ICVs and other vehicles in a secure location and move dismounted by stealth through gaps or around enemy positions to conduct operations such as raids, ambushes, or other attacks. The company also may separate its personnel from their vehicles for other types of operations, such as stay-behind and reconnaissance.

a. **Fundamentals.** The company has the capability to move to critical targets undetected, achieve surprise, and avoid the effects of enemy fires. Limited visibility, bad weather, and restrictive terrain also reduce the chances of detection when soldiers are separated from their vehicles. A unit may opt to separate from its vehicles--

- To gather information.
- To attack the enemy at a weak point.
- To seize key terrain or destroy vital installations behind enemy positions.
- To harass and disrupt the enemy with ambushes in his rear area.
- To attack enemy reserves, fire support units, and command posts.
- To participate in air assault operations.

b. **Considerations.** The company commander must prepare and give his units enough time for planning and preparation for movement without their vehicles. In either case, movement techniques and formations are based on the likelihood of enemy contact, the terrain, the level of visibility, and the need for speed and control.

(1) The routes selected must use the best available cover and concealment, ease control and navigation, and avoid obstacles and danger areas. Routes should be reconnoitered without alerting the enemy. This may be possible by using RSTA assets within the SBCT; however, leaders should consider using map reconnaissance, guides, or marking the routes.

(2) Visual signals, such as arm-and-hand signals, infrared devices, and flashlights with colored lenses, reduce the chance of detection. Avoid sound signals and flares. Recognition signals are critical for actions at a linkup or rally point.

(3) Radio listening silence should be enforced, except when a unit must report its progress or when a unit detected by the enemy needs supporting fire.

(4) Indirect fires are always planned not only for the dismounted element but the vehicle laager area as well

(5) A vehicle laager site out of which maneuver units are executing dismounted operations has the following characteristics:

- Concealment from enemy ground and, if possible, air observation.
- Good drainage and a surface that can support both tracked and wheeled vehicles.
- Suitable entrances, exits, and internal roads or trails.
- Sufficient space for dispersion of vehicles and equipment.

7-15. OCCUPYING VEHICLE LAAGER SITES

The company may initially occupy the vehicle laager site as an independent element or as part of a battalion. In either situation, upon arrival the company occupies its vehicle laager site using the procedures for hasty occupation of a BP.

a. The company commander establishes local security and coordinates with any adjacent units that may also be in the general area. He assigns weapons orientation and a sector of responsibility for each platoon and subordinate elements. If the company occupies the vehicle laager site alone, it establishes a perimeter defense. Upon departure of the dismounted portion of the company conducting operations, the senior individual remaining in the laager site assumes responsibility normally associated with occupation of a BP.

b. Following occupation of the vehicle laager site, the elements remaining can prepare for future operations by conducting troop-leading procedures and priorities of work in accordance with SBCT battalion and company OPORDs per tactical SOPs. These preparations include the following:

- Establish and maintain security.
- Employ security measures as necessary, including protection against enemy infiltration.
- Conduct troop-leading procedures.
- If the tactical situation permits, perform maintenance on their vehicles and communications equipment.
- If practical, conduct resupply operations, including refueling and rearming.
- Reestablish vehicle load plans.

Section V. PASSAGE OF LINES

A passage of lines entails movement of one or more units through another unit. This operation becomes necessary when the moving unit(s) cannot bypass the stationary unit and must pass through it. The primary purpose of the passage is to maintain the momentum of the moving elements. A passage of lines may be designated as either forward or rearward (refer to the discussion and illustrations later in this section). The controlling SBCT battalion is responsible for planning and coordinating a passage of

lines involving the company. In some situations, as when the company is using multiple passage routes (such as a separate route for each platoon), the company commander must take responsibility for planning and coordinating each phase of the operation.

7-16. PLANNING CONSIDERATIONS

In planning the passage of lines, the commander must consider the tactical factors and procedures covered in the following paragraphs.

a. **Passage Lanes.** The passage should facilitate transition to follow-on missions through the use of multiple lanes or lanes wide enough to support doctrinal formations for the passing units.

b. **Use of Deception.** The company can use deception techniques, such as smoke, to enhance security during the passage.

c. **Battle Handover.** The controlling commander must clearly define the battle handover criteria and procedures to be used during the passage. His order should cover the roles of both the passing unit and the stationary unit and the use of direct and indirect fires. If necessary, he also specifies the location of the battle handover line (BHL) as part of the unit's graphic control measures. For a forward passage, the BHL is normally the LD for the passing force; in a rearward passage, it is normally a location within the direct fire range of the stationary force. In general, a defensive handover is complete when the passing unit is clear and the stationary unit is ready to engage the enemy. Offensive handover is complete when the passing unit has deployed and crossed the BHL.

d. **Obstacles.** The passing and stationary units must coordinate obstacle information, to include the locations of enemy and friendly obstacles, existing lanes and bypasses, and guides for the passage.

e. **Air Defense.** Air defense coverage is imperative during the high-risk passage operation. Normally, the stationary SBCT unit is responsible for providing air defense, allowing the passing unit's air defense assets to move with it.

f. **CSS Responsibilities.** Responsibility for CSS actions, such as vehicle recovery or casualty evacuation in the passage lane, must be clearly defined for both passing and stationary units.

g. **Command and Control.** To enhance command and control during the passage, the company collocates a command and control element, normally the company commander or XO, with a similar element from the stationary or moving unit (as applicable).

7-17. RECONNAISSANCE COORDINATION

Detailed reconnaissance and coordination are critical in a passage of lines, both in dealing with the often complex planning factors outlined previously and in ensuring that the passage is conducted quickly and smoothly. The company commander normally conducts all necessary reconnaissance and coordination for the passage. At times, he may designate the XO, 1SG, or a platoon leader to conduct liaison duties for reconnaissance and coordination. The following items of information are coordinated:

- Unit designation and composition; type and number of passing vehicles.
- Passing unit arrival time(s).
- Location of attack positions or assembly areas.
- Current enemy situation.

- Stationary unit's mission and plan (to include OP, patrol, and obstacle locations).
- Location of movement routes, contact points, passage points, and passage lanes.

NOTE: In units with digital capability, the use of GPS and or position navigation (POSNAV) waypoints simplifies this process and, as a result, speeds the passage.

- Guide requirements.
- Order of march.
- Anticipated actions on enemy contact.
- Requirements for supporting direct and indirect fires, including the location of the RFL.
- NBC conditions.
- Available CS and CSS assets and their locations.
- Communications information (to include frequencies, digital data, and near and far recognition signals).
- Criteria for battle handover and location of the BHL.
- Additional procedures for the passage.

7-18. FORWARD PASSAGE OF LINES

In a forward passage, the passing unit first moves to an assembly area or an attack position behind the stationary unit. Designated liaison personnel move forward to link up with guides and confirm coordination information with the stationary unit. Guides then lead the passing elements through the passage lane. The company conducts a forward passage by employing tactical movement. It moves quickly, using appropriate dispersal and formations whenever possible and keeping radio traffic to a minimum. It bypasses disabled vehicles as necessary. The company holds its fire until it passes the BHL or designated fire control measure unless the company commander has coordinated fire control with the stationary unit. Once clear of passage lane restrictions, the unit consolidates at a rally point or attack position and then conducts tactical movement in accordance with its orders. Figure 7-5, page 7-22, illustrates a forward passage of lines.

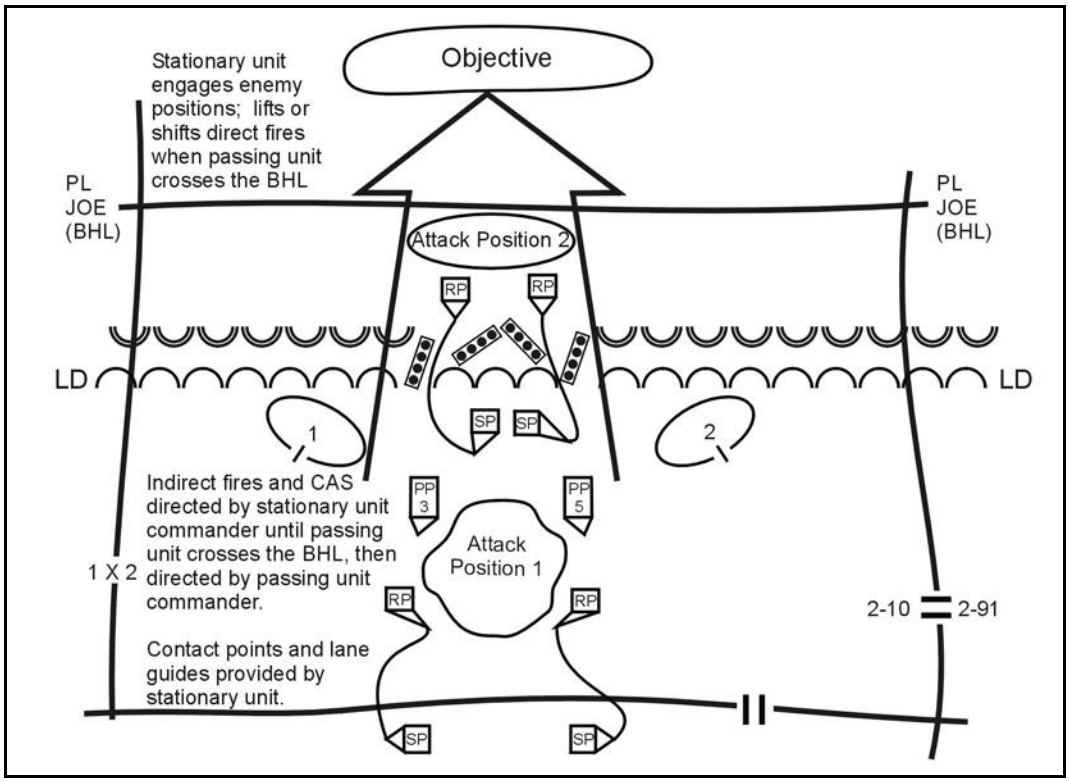


Figure 7-5. SBCT infantry company forward passage of lines.

7-19. REARWARD PASSAGE OF LINES

Because of the increased chance of fratricide during a rearward passage, coordination of recognition signals and direct fire restrictions is critical. The passing unit contacts the stationary unit while it is still beyond direct fire range and conducts coordination as discussed previously. Coordination emphasizes near recognition signals and location of the BHL. Additional fire control measures, such as RFLs, may be employed to further minimize the risk of fratricide. Following coordination, the passing unit continues tactical movement toward the passage lane. Gun tubes are oriented on the enemy, and the passing unit is responsible for its own security until it passes the BHL. If the stationary unit provides guides, the passing unit may conduct a short halt to link up and coordinate with them. The passing unit moves quickly through the passage lane to a designated location behind the stationary unit (Figure 7-6).

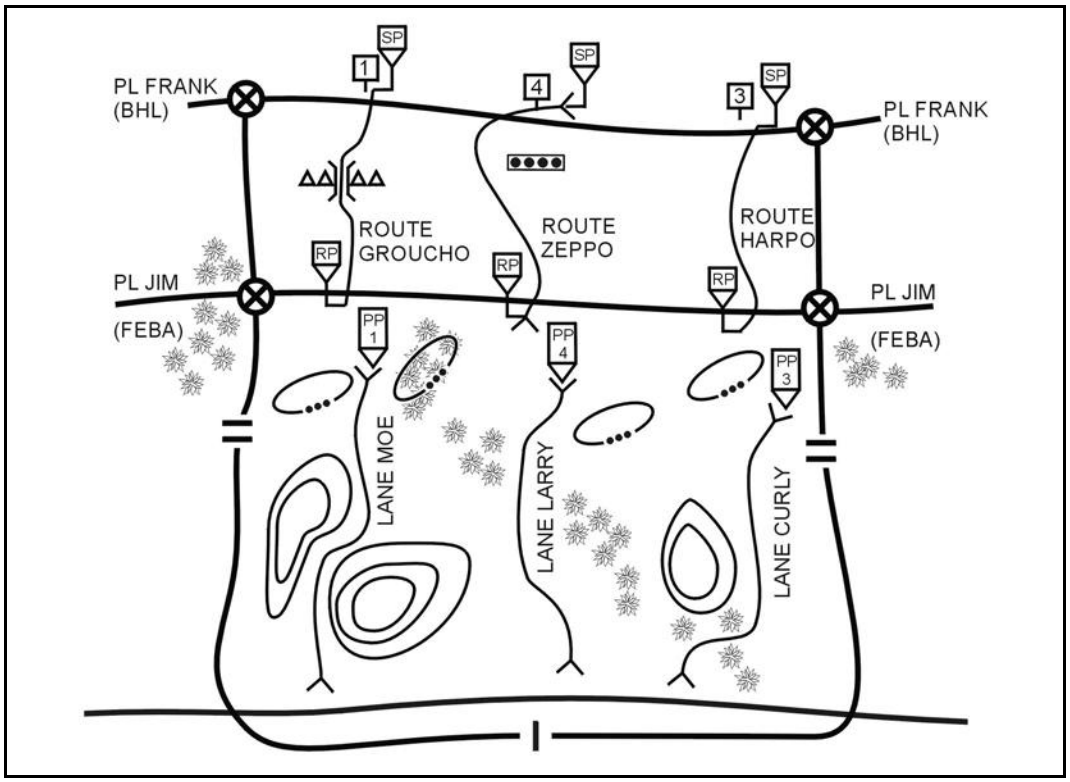


Figure 7-6. SBCT infantry company rearward passage of lines.

Section VI. BREACHING

Obstacle breaching is a high-frequency task during offensive operations. Breaching entails the employment of a combination of techniques, procedures, and equipment to project combat power to the far side of an obstacle. The company commander must understand the challenges presented by various types of obstacles and the capabilities and limitations of the mobility assets the company can employ to defeat them. He must further understand the basic tenets of breaching and the types of breaches the company may be tasked to conduct. (FM 3-34.2 contains a more detailed discussion of breaching operations and threat obstacle employment.)

7-20. BREACHING TENETS

In the planning and execution of a successful combined-arms breaching operation, the company commander must apply the five tenets of breaching. These basic principles, described in this discussion, are the following:

- Intelligence.
- Breaching fundamentals.
- Breaching organization.
- Mass.
- Synchronization.

a. **Intelligence.** Well-rehearsed drills and tactical SOPs and redundancy in breaching assets can offset a lack of obstacle intelligence (OBSTINTEL) in breaching operations involving simple obstacles or lightly defended obstacles. Detailed OBSTINTEL, however, is imperative for a successful breach of a complex obstacle. Without thorough

information on the obstacle itself and the defense it supports, the breach force is at risk. As a minimum, OBSTINTEL requirements for breach and maneuver planning should cover the following:

(1) ***Bypasses and Gaps.*** The existence of adequate bypasses affects the decision of whether a breaching operation is required. Gaps may influence what type of breach is used.

(2) ***Obstacle Location and Orientation.*** These are factors in which the breach is conducted.

(3) ***Obstacle Composition and Depth.*** These factors, which are critical to how the breach is conducted, include the following:

- Types of mines employed, by target type (antipersonnel or antitank), positioning (buried or surface-laid), and method of activation (pressure, mechanical, or magnetic).
- Presence of antihandling devices.
- Size of the obstacle and whether it is tied into existing or reinforcing obstacles.

(4) ***Location of the Enemy's Direct Fire Weapons (Mounted and Dismounted).*** This influences actions on the objective during the breach, including how to suppress and obscure the enemy.

(5) ***Topography.*** Topography affects the use of various types of breaching assets. Some equipment, for example, may not work efficiently in rocky soil.

b. **Breaching Fundamentals.** There are five basic steps that are part of every breaching operation. The simplified steps, known by the acronym SOSRA, are suppress, obscure, secure, reduce, and assault.

(1) ***Suppres.***. Focus all available fires on the enemy to prevent him from placing effective fires on the breach and assault forces.

(2) ***Obscure.*** Employ screening or obscuring smoke to prevent enemy acquisition of friendly elements.

(3) ***Secure.*** Secure the breach site to prevent the enemy from interfering with obstacle reduction or passage of friendly forces through the cleared lanes. Security must be effective against all types of enemy elements that can influence these actions, including outposts and fighting positions near the obstacle, overwatching units, and counterattack forces.

(4) ***Reduce.*** Create lanes through or over the obstacle to allow the assault force to pass through and to enable follow-on forces to accomplish their missions.

(5) ***Assault.*** Assault through the breach to destroy enemy forces on the far side of the obstacle that are capable of placing or observing direct and indirect fires on the reduction area and to seize key terrain that will facilitate further combat operations.

c. **Breaching Organization.** The breach commander designates support, breach, and assault forces. The following paragraphs summarize the responsibilities and actions of these three elements during the breaching operation.

(1) ***Support Force.*** The support element takes these actions:

- Establishes support by fire positions and suppresses the enemy with direct and indirect fires to prevent him from placing effective fires against friendly forces.
- Employs or calls for smoke to obscure the enemy or screen friendly movement.

(2) ***Breach Force.*** The breach element takes these actions:

- Searches for bypasses.
- Establishes breach site security on the near side of the obstacle against mounted and dismounted enemy elements.
- Reduces the obstacle.
- Proofs and marks lanes or bypasses.
- Establishes breach site security on the far side against mounted and dismounted enemy elements to facilitate passage of the assault force.

(3) ***Assault Force.*** The assault element takes these actions:

- As necessary, assists the support force with suppression during the initial reduction of the obstacle.
- As necessary, conducts an assault breach of protective obstacles.
- Secures the far side of the obstacle (this is defined as the area that can influence the breach site).
- As directed, conducts additional actions on the objective to destroy enemy elements on the far side of the obstacle.

d. **Mass.** A critical factor in the success of any breaching operation, mass is achieved when the friendly force is able to fix a majority of the enemy or to isolate or obscure the objective using smoke. The breach commander must plan for a 50-percent redundancy in reduction assets. He can generate favorable force ratios through the employment of additional combat multipliers.

e. **Synchronization.** Synchronization can best be achieved in a breaching operation through the use of detailed reverse planning, clear instructions to subordinate elements, effective command and control, and extensive rehearsals. The emphasis is on the steps of SOSRA. Planning considerations for synchronization during the breach, listed in a possible reverse sequence, include the following:

- Reverse planning starts with actions on the objective.
- The planned actions on the objective influence the size and composition of the assault force and the number and location of lanes to be created.
- Lane requirements, topography, and the types of obstacles determine the type and number of reduction assets task-organized to the breach force.
- The ability of the enemy's infantry to interfere with the breach determines whether the breach site is secured by fires or by force.
- The enemy's ability to mass fires at the breach site dictates the nature of the required suppression fires (including the composition of the support force and the type and amount of supporting fires).
- The location of the enemy and the availability of clear fields of fire determine the location of the support force and its support-by-fire position.

7-21. TYPES OF BREACHES

This paragraph discusses the combined-arms deliberate breach and combined-arms hasty breach. (Refer to FM 3-34.2 for a detailed discussion of combined-arms breaching operations.) A discussion of the bypass operation, which the commander must first consider as an alternative to conducting an actual breach, is also included.

a. **Bypass.** When a unit bypasses an obstacle, it physically changes direction, moving along a route that avoids the obstacle. Obstacles should be bypassed whenever possible to maintain the momentum of the operation. SBCT infantry commanders, however, must ensure that conducting the bypass will provide a tactical advantage without exposing the unit to unnecessary danger. If possible, they should conduct a reconnaissance to evaluate tactical considerations to include--

- The limits of the obstacle.
- Physical aspects of the bypass route, including location, availability of cover and concealment, and key terrain influencing the route.
- Confirmation that the bypass route will take the unit where it needs to go while avoiding possible enemy ambush sites and kill sacks.

(For additional considerations related to bypass operations, refer to the discussion of the bypass as a tactical task in Chapter 4 of this manual.)

b. **Combined-Arms Hasty Breach.** SBCTs and battalions employ the combined-arms hasty breaching technique to overcome unexpected or lightly defended obstacles quickly; they may also use the technique when the obstacle or enemy situation is unclear. SBCT and SBCT infantry battalion commanders may prepare their units for a combined-arms hasty breach by task-organizing subordinate SBCT battalions or companies (as applicable) with the additional forces necessary to conduct the operation. As with the combined-arms deliberate breach, the SBCT battalion commander may direct the company, probably task-organized with one or more engineer platoons, to conduct the combined-arms hasty breach on its own. The company commander assumes responsibility for designating support, breach, and assault forces and for synchronizing SOSRA actions.

c. **Combined-Arms Deliberate Breach.** The combined-arms deliberate breach is a scheme of maneuver specifically designed to reduce an obstacle, allowing the unit to continue the mission. Thorough reconnaissance, detailed planning, and extensive preparation and rehearsal characterize the deliberate breach. Subordinate elements are tasked to perform the roles of support, breach, and assault forces. The SBCT battalion commander is responsible for synchronizing the steps of SOSRA.

Section VII. AIR ASSAULT OPERATIONS

Situations favoring an air assault operation for the SBCT include those in which the enemy has a vulnerable area suitable for air assault, surprise can be achieved, and enemy air defenses are weak and vulnerable or can be effectively suppressed.

7-22. PLANNING CONSIDERATIONS

The SBCT infantry rifle company may be required to participate in air assault operations as part of the tactical plan. The company has the ability to be air lifted as part of a larger operation. The battalion is the lowest level with sufficient personnel to plan, coordinate, and control an air assault operation. When company-size or lower operations are

conducted, the planning takes place at battalion or higher headquarters. Successful air assault execution is based on a careful analysis of METT-TC factors and detailed, precise reverse planning. Refer to FM 90-4 for a detailed discussion of air assault operation.

NOTE: Separating the infantry from the ICV and MGS vehicles during air assault operations will eliminate the supporting fires from the MGS platoon and may limit the inter-networked communications and the commanders and leaders knowledge of the changing situation.

7-23. REVERSE PLANNING SEQUENCE

The basic plans that comprise the reverse planning sequence are developed for each air assault operation and include ground tactical plan, landing plan, air movement plan, loading plan, and staging plan. These plans normally are coordinated and developed by the battalion staff to make the best use of available time. If time is limited, planning steps may be compressed or conducted concurrently.

a. **Ground Tactical Plan.** The foundation of a successful air assault operation is the commander's ground tactical plan, around which subsequent planning is based. The ground tactical plan specifies actions in the objective area to accomplish the mission and addresses subsequent operations. The ground tactical plan contains essentially the same elements as any other infantry attack plan but capitalizes on speed and mobility to achieve surprise. The vehicle link up plan should be addressed if the intent is to move the vehicles to link up with the company in the area of operation.

b. **Landing Plan.** The landing plan must support the ground tactical plan. This plan sequences elements into the area of operations to ensure that platoons arrive at designated locations and times, prepared to execute the ground tactical plan.

c. **Air Movement Plan.** The air movement plan is based on the ground tactical and landing plans. It specifies the schedule and provides the instructions for air movement of soldiers, equipment, and supplies from pickup zones and landing zones.

d**. Loading Plan.** The loading plan is based on the movement plan. It ensures soldiers, equipment, and supplies are loaded on the correct aircraft. Platoon integrity is maintained when aircraft loads are planned. Cross loading of essential personnel and equipment is imperative to ensure survivability of command and control assets and to ensure that the mix of personnel and weapons arriving at the LZ is ready to fight. The company commander or platoon leader should always ensure the aircraft is loaded so that dismounting soldiers react promptly and contribute to mission accomplishment. The company must have a bump plan. A bump plan ensures essential soldiers and equipment are loaded ahead of less critical loads in case of aircraft breakdown or other problems.

e. **Staging Plan.** The staging plan is based on the loading plan and prescribes the arrival time of ground units (soldiers, equipment, and supplies) at the PZ in the order of movement. The staging plan includes the disposition of the vehicles left in the staging area and the company's linkup plan if the link up is to occur on return from the air assault mission.

(1) ***Disposition of Vehicles.*** The company commander must develop a security plan for the vehicles that remain in the staging area until the company returns to the LZ after the air assault mission is completed. Instructions for link up of the platoons with their vehicles will also be included.

(2) ***Linkup of Vehicles.*** The linkup plan must be just as detailed as the staging and loading plans. To simplify the linkup, the company commander must ensure that platoon integrity is maintained. The company commander should designate a linkup point for each element to link up with its vehicles. As the aircrafts land, the elements immediately move to their linkup point to continue the mission.

CHAPTER 8
STABILITY OPERATIONS

Stability operations encompass a range of actions that shape the political environment and respond to developing crises. These operations are diverse, continuous, and often long-term. Stability operations may include both developmental and coercive actions. Developmental actions are aimed at enhancing a government's willingness and ability to care for its people. Coercive military actions involve the application of limited, carefully prescribed force, or the threat of force, to achieve specific objectives. Stability operations are usually nonlinear and noncontiguous and are often time and manpower intensive. Army elements may be tasked to conduct stability operations in a complex, dynamic, and often asymmetric environment, to accomplish one or more of the following purposes:

- *Deter or thwart aggression.*
- *Reassure allies or friendly governments, agencies, or groups.*
- *Provide encouragement and support for a weak or faltering government.*
- *Stabilize an area with a restless or openly hostile population.*
- *Maintain or restore order.*
- *Satisfy treaty obligations or enforce national or international agreements and policies.*

NOTE: For more detailed information on stability operations, refer to the following publications:

- Joint Publications 3-07.2 and 3-07.3.
- FM 3.0
- FM 7-98.
- FM 100-19.
- FM 100-20.
- FM 100-23.

Section I. PLANNING CONSIDERATIONS

Although stability operations normally are centrally planned, execution often takes the form of small-scale, noncontiguous actions conducted over extended distances. Responsibility for making decisions on the ground falls to junior leaders. The following paragraphs examine several important considerations that influence planning and preparation for stability operations. (For a more detailed discussion of these subjects, refer to FM 100-23.)

8-1. RULES OF ENGAGEMENT

In decentralized operations, effective command guidance and a detailed understanding of rules of engagement are critical at each operational level.

a. ROE are directives that explain the circumstances and limitations under which US forces initiate and continue combat engagement with forces encountered. These rules reflect the requirements of the laws of war, operational concerns, and political considerations when the operational environment shifts from peace to conflict and back to peace.

b. ROE must be briefed and trained to the lowest operational level. They should be established for, disseminated to, and thoroughly understood by every soldier in the unit. Another important consideration in development and employment of ROE is that commanders must assume that the belligerents they encounter will also understand the ROE. These unfriendly elements will attempt to use their understanding of the ROE to their own advantage and to the disadvantage of the friendly force. (Refer to FM 100-23 for a more detailed discussion of ROE.)

8-2. RULES OF INTERACTION

Rules of interaction embody the human dimension of stability operations. They lay the foundation for successful relationships with the myriad of factions and individuals that play critical roles in these operations. ROI encompass an array of interpersonal communication skills, such as persuasion and negotiation.

a. ROI are tools the individual soldier needs to deal with the nontraditional asymmetric threats that are prevalent in stability operations, including political friction, unfamiliar cultures, and conflicting ideologies. In turn, ROI enhance the soldier's survivability in such situations.

b. ROI are based on the applicable ROE for a particular operation; they must be tailored to the specific regions, cultures, and populations affected by the operation.

c. Reinforcement of ROI is critical. ROI can be effective only if they are thoroughly rehearsed and understood by every soldier in the unit.

8-3. FORCE PROTECTION

SBCT infantry commanders must implement appropriate security measures to protect the force. Establishment of checkpoints, effective base camp security procedures, and aggressive patrolling are examples of force protection measures. The SBCT infantry company may receive taskings as part of the SBCT battalion security plan. Additional security taskings result from the company commander's concept for the company defense. These taskings may be oriented on friendly units, on the enemy and terrain (reconnaissance), or on the enemy's reconnaissance assets (counterreconnaissance). The commander establishes a security plan to keep the enemy from observing or surprising the company. He establishes this plan before moving the company into the area and maintains it continuously. The SBCT infantry company commander bases this plan on orders received from the SBCT battalion and on the enemy situation, terrain, and visibility conditions. The plan provides active and passive measures and counterreconnaissance.

a. **Active Measures.** These include OPs, stand-tos, and patrols.

(1) The commander can require each platoon to have a set number of OPs; if not, the platoon leaders decide what they need. There should be at least one OP for each platoon. In close terrain or limited visibility, there may be one for each squad.

(2) The commander can also require a set number of men to be on security at all times. The number varies with the enemy situation, terrain, visibility, and the unit's need for rest. As a guide, at least one third of the soldiers should be on security at all times.

(3) When an attack is expected, the entire SBCT infantry company should be on alert; however, this should not be maintained for long periods. The commander must keep in mind that his soldiers need rest to function in future operations. Leaders must establish and enforce a sleep plan without sacrificing security for rest.

(4) A stand-to is held both morning and evening to ensure that each man adjusts to the changing light and noise conditions and is dressed, equipped, and ready for action. The stand-to should start before first light in the morning and continue until after light. It should start before dark in the evening and last until after dark. The starting and ending times should vary to prevent establishing a pattern, but the stand-to must last long enough to accomplish its purpose.

(5) The SBCT battalion can have its companies dispatch patrols whose missions contribute to battalion security. The SBCT infantry company commander can dispatch patrols in addition to those required by the battalion to satisfy the security needs. He may have the patrols reconnoiter dead space in the sector, gaps between platoons, gaps between the company and adjacent units, or open flanks. The company reserve may provide these patrols. Platoons may dispatch similar security patrols. All patrols sent out by the company or its platoons must be coordinated with battalion. (For more information on patrolling, see FM 7-8.)

b. **Passive Measures.** These measures include camouflage, movement control, light and noise discipline, and proper radiotelephone procedures. MGS and Javelin gunners, with their daysights and nightsights, can add to the security effort both day and night. The company should also use its NVDs for surveillance.

(1) To ensure effective coverage, the company commander may direct platoons to cover specific areas with specific devices (such as NVDs and thermal sights). He may also specify how many NVDs will be in use (for example, "one half of the soldiers on security will use NVDs").

(2) Sector sketches should include the locations of key devices to include NVDs, thermal sights, and MGS and Javelin nightsights.

8-4. TASK ORGANIZATION

Because of the unique requirements of stability operations, more often than not the SBCT infantry company is task-organized to operate with a variety of units. This includes some elements with which the company does not normally work, such as linguists, counterintelligence teams, and civil affairs teams.

8-5. CSS CONSIDERATIONS

The operational environment the company faces during stability operations may be very austere, creating special CSS considerations. These factors include, but are not limited to, the following:

a. Reliance on local procurement of certain items.

b. Shortages of various critical items, including repair parts, Class IV supply materials, and Class III lubricants.

c. Special Class V supply requirements, such as pepper spray.

d. Difficulty in finding or obtaining potable water, resulting in reliance on bottled water.

8-6. MEDIA CONSIDERATIONS

The presence of the media is a reality that confronts every soldier involved in stability operations. All leaders and soldiers must know how to deal effectively with broadcast and print reporters and photographers. This should include an understanding of which subjects they are authorized to discuss and which subjects they must refer to the public affairs officer (PAO).

8-7. OPERATIONS WITH OUTSIDE AGENCIES

US Army units may conduct certain stability operations in coordination with a variety of outside organizations. These include other US armed services or government agencies as well as international organizations such as private volunteer organizations (PVOs), nongovernmental organizations (NGOs), and United Nations (UN) military forces or agencies.

Section II. TYPES OF OPERATIONS

Stability operations typically fall into ten broad types that are neither discrete nor mutually exclusive. For example, a force engaged in a peace operation may also find itself conducting arms control or a show of force to set the conditions for achieving an end state. This section provides an introductory discussion of stability operations; for more detailed information, refer to FM 3-0 and FM 3-07. Types of support operations are as follows:

- Peace operations.
  - — Peacekeeping.
  - — Peace enforcement.
  - — Operation in support of diplomatic efforts.
- Foreign internal defense.
- Security assistance.
- Humanitarian and civic assistance.
- Support to insurgencies.
- Support to counterdrug operations.
- Combating terrorism.
- Noncombatant evacuation operations.
- Arms control.
- Show of force.

8-8. PEACE OPERATIONS

Peace operations encompass three general areas: operations in support of diplomatic efforts, peacekeeping, and peace enforcement. The SBCT infantry company may participate in peacekeeping or peace enforcement operations; it may support diplomatic efforts as part of the battalion or larger force.

a. **Peacekeeping Operations.** A peacekeeping force monitors and facilitates the implementation of cease-fires, truce negotiations, and other such agreements. In doing so, it must assure all sides in the dispute that the other involved parties are not taking

advantage of settlement terms to their own benefit. The SBCT infantry company most often observes, monitors, or supervises and assists the parties involved in the dispute. The peacekeeping force must remain entirely neutral. If it loses a reputation for impartiality, its usefulness within the peacekeeping mission is compromised.

b. **Peace Enforcement Operations.** Several unique characteristics distinguish peace enforcement activities from wartime operations and from other stability operations. The purpose of peace enforcement is to compel compliance with resolutions or sanctions assigned and to maintain or restore peace and order. It may entail combat, armed intervention, or physical threat of armed intervention. Under the provisions of an international agreement, the SBCT battalion and its subordinate companies may be called upon to use coercive military power to compel compliance with international sanctions or resolutions.

8-9. FOREIGN INTERNAL DEFENSE

Foreign internal defense is participation by civilian and military agencies of a government in any action programs taken by another government to free and protect its society from subversion, lawlessness, and insurgency (JP 1-02). The main objective is to promote stability by helping a host nation establish and maintain institutions and facilities responsive to its people's needs. Army forces in foreign internal defense normally advise and assist host-nation forces conducting operations to increase their capabilities. This type of stability operation is normally conducted by special operating forces.

8-10. SECURITY ASSISTANCE

Army forces support security assistance efforts by training, advising, and assisting allied and friendly armed forces. Security assistance includes the participation of Army forces in any of a group of programs by which the US provides defense articles, military training, and other defense-related services to foreign nations by grant, loan, credit, or cash sales in furtherance of national policies and objectives (JP 3-07).

8-11. HUMANITARIAN AND CIVIC ASSISTANCE

Humanitarian and civic assistance (HCA) programs provide assistance to the host-nation populace in conjunction with military operations and exercises. In contrast to humanitarian and disaster relief operations, HCA actions are planned activities; they are limited to the following categories:

- Medical, dental, and veterinary care provided in rural areas of a country.
- Construction of rudimentary surface transportation systems.
- Well drilling and construction of basic sanitation facilities.
- Rudimentary construction and repair of public facilities.

8-12. SUPPORT TO INSURGENCY

This type of support includes assistance provided by US forces to help a friendly nation or group that is attempting to combat insurgent elements or to stage an insurgency itself. This type of stability activity normally is conducted by special operating forces.

8-13. SUPPORT TO COUNTERDRUG OPERATIONS

US military forces may be tasked for a variety of counterdrug activities, which are always conducted in conjunction with another government agency. These activities include destroying illicit drugs and disrupting or interdicting drug manufacturing, growing, processing, and smuggling operations. Counterdrug support may take the form of advisory personnel, mobile training teams, offshore training activities, and assistance in logistics, communications, and intelligence.

8-14. COMBATING TERRORISM

In all types of stability operations, antiterrorism and counterterrorism activities are a continuous requirement in protecting installations, units, and individuals from the threat of terrorism. Antiterrorism focuses on defensive measures used to reduce the vulnerability of individuals and property to terrorist attacks. Counterterrorism encompasses a full range of offensive measures to prevent, deter, and respond to terrorism. (For more information on these activities, refer to Joint Publication 3-07.2.)

8-15. NONCOMBATANT EVACUATION OPERATIONS

A noncombant evacuation operation (NEO) is conducted primarily to evacuate US citizens whose lives are in danger, although it may also include natives of the host nation and third-country nationals. These operations involve swift insertion and temporary occupation of an objective followed by a planned withdrawal. Leaders use only the amount of force required for protection of evacuees and self-defense.

8-16. ARMS CONTROL

An SBCT infantry company may conduct arms control inspections during stability operations to prevent escalation to conflict. This could include the mandated disarming of belligerents. The collection, storing, and destruction of conventional munitions and weapons systems can deter belligerents from resuming hostilities.

8-17. SHOW OF FORCE OPERATIONS

Forces deployed abroad lend credibility to a nation's promises and commitments. In support of this principle, show-of-force operations are meant to bolster and reassure allies through a display of credible military force. SBCT infantry companies participating in a show of force mission should assume that combat is not only possible but also probable. All preparatory actions associated with the conduct of combat operations pertain to a show of force. Although actual combat is not desired, a show of force can escalate rapidly and unexpectedly.

Section III. COMPANY TASKS

Stability operations are complex and very demanding. The SBCT infantry company participating in stability operations is required to master skills ranging from conducting negotiations to establishing observation posts and checkpoints or conducting a convoy escort. The tasks discussed in this section include lessons learned that will assist the company commander in implementing these and other tasks.

8-18. ESTABLISH AND OCCUPY A LODGMENT AREA

A lodgment area is a highly prepared position used as a base of operations in stability operations (Figure 8-1, page 8-8). Like an assembly area or defensive strongpoint, the lodgment provides a staging area for the occupying SBCT unit, affords a degree of force protection, and requires 360-degree security. However, several important characteristics distinguish the lodgment area from less permanent positions.

a. Due to the probability of long-term occupation, the lodgment requires a level of preparation and logistical support. It must have shelters and facilities that can support the occupying force and its attachments for an extended period. The area must be positioned and developed so the unit can effectively conduct its primary missions (such as peace enforcement or counterterrorism) throughout its area of responsibility.

b. In establishing the lodgment, the SBCT infantry company may use existing facilities or request construction of new facilities. A key advantage in using existing structures is immediate availability, and this also reduces or eliminates the need for construction support from engineers and members of the company. There are disadvantages as well. Existing facilities may be inadequate to meet the company's operational needs, and they may pose security problems because of their proximity to other structures.

c. The company may establish and occupy a lodgment area as part of an SBCT battalion or, with significant support from the controlling SBCT battalion, as a separate element.

d. Before he begins preparation, construction, and occupation of the lodgment area, the company commander must plan its general layout. He should evaluate these factors:

(1) Location of the lodgment area.
(2) Effects of weather.
(3) Local traffic patterns.
(4) OP sites and patrol routes.
(5) Entry and exit procedures.
(6) Vehicle emplacement and orientation.
(7) Bunkers and fighting positions.
(8) Direct and indirect fire planning.
(9) Size and composition of the reserve.
(10) Location of possible LZs and PZs.

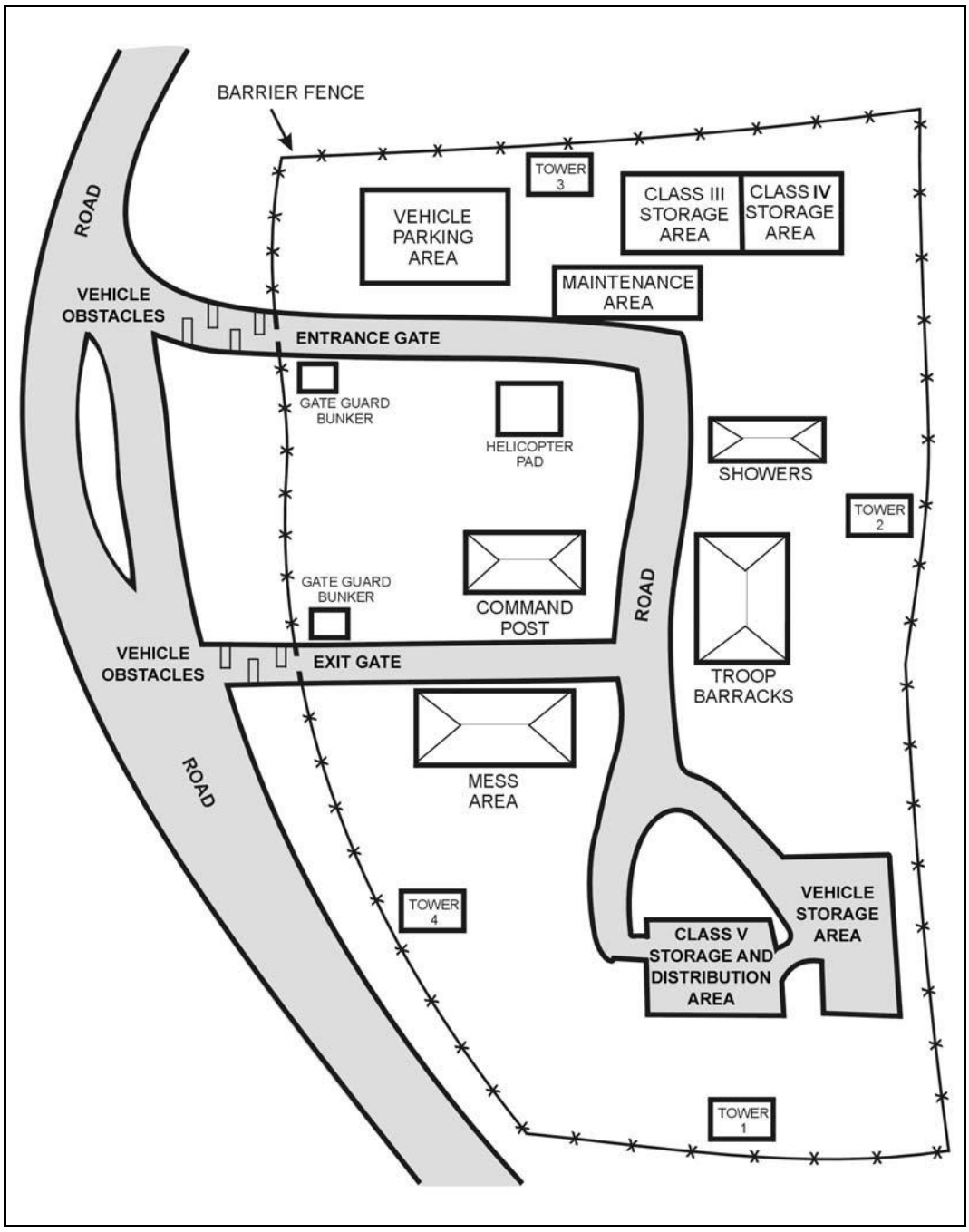


Figure 8-1. Example SBCT infantry company lodgment area using existing facilities.

(11) CSS considerations, including locations of the following:

- Mess areas, showers, and latrines (including drainage).
- Storage bunkers for Class III, IV, and V supplies.
- Maintenance and refueling areas.
- Aid station.
- CP site security.

(12) Size, composition, and function of advance and reconnaissance parties.

(13) Nature and condition of existing facilities (quarters; water, sewer, and power utilities; reinforced "hard-stand" areas for maintenance).

(14) Proximity to structures and roadways (including security factors).

(15) Priorities of work. The commander must designate priorities of work as the company establishes the lodgment area. He should consider the following tasks:

- Establishment of security of the immediate area and the perimeter.
- Establishment of initial roadblocks to limit access to the area.
- Mine clearance.
- Construction of revetments to protect vehicles, generators, communications equipment, and other facilities.
- Construction of barriers or berms around the lodgment area to limit observation of the compound and provide protection for occupants.
- Construction of shelters for lodgment personnel.
- Construction of defensive positions.
- Construction of sanitation and personal hygiene facilities.
- Construction of hardened CP facilities.
- Continuing activities to improve the site (such as adding hard-wire electrical power or perimeter illumination).

8-19. CONDUCT NEGOTIATIONS

The SBCT infantry company may face a number of situations in which leaders need to conduct negotiations. There are two general types of negotiations: situational and preplanned.

a. **Situational Negotiations.** Situational negotiations are conducted in response to a requirement for on-the-spot discussion and resolution of a specific issue or problem. An example would be members of an advance guard negotiating the passage of a convoy through a checkpoint.

(1) At the company level, situational negotiations are far more common than the preplanned type. In fact, employment in stability operations requires the commander, his subordinate leaders, and other soldiers to conduct some form of negotiations almost daily. This, in turn, requires them to have a thorough understanding of the ROE and ROI.

(2) Members of the company apply this working knowledge to the process of discussing and, whenever possible, resolving issues and problems that arise between opposing parties, which may include the company itself. A critical aspect of this knowledge is the negotiator’s ability to recognize that he has exhausted his options under the ROE and ROI and must turn the discussion over to a higher authority. Negotiations continue at progressive levels of authority until the issue is resolved.

(3) In preparing themselves and their soldiers for the negotiation process, the commander and subordinate leaders must conduct rehearsals covering the ROE and ROI. One effective technique is to rehearse application of ROE and ROI in a given stability situation, such as manning a checkpoint. This forces both leaders and subordinates to analyze the ROE and ROI while applying them in an operational environment.

b. **Preplanned Negotiations.** Preplanned negotiations are conducted in response to a requirement for discussion and resolution of an upcoming specific issue or problem. Preplanned negotiations are conducted in situations such as an SBCT infantry company

commander conducting a work coordination meeting between leaders of the belligerents to determine mine clearance responsibilities. Preplanned negotiations require negotiators to thoroughly understand both the dispute or issue at hand and the factors influencing it, such as the ROE and ROI, before talks begin. The negotiator's ultimate goal is to reach an agreement that is acceptable to both sides and that reduces antagonism and the chance of renewed hostilities between the parties involved. The following paragraphs list guidelines and procedures for each phase of the negotiation process.

(1) Identify the purpose of negotiations. Before contacting leaders of the belligerent parties to initiate the negotiation process, the commander must familiarize himself with both the situation and the area in which his unit will operate. This includes identifying and evaluating avenues of approach that connect the opposing forces. Results of the negotiation process, which may be lengthy and complicated, must be based on national or international agreements or accords. Negotiation topics include the following:

- When the sides will withdraw.
- Positions to which they will withdraw (these should preclude observation and direct fire by the opposing parties).
- What forces or elements will move during each phase of the operation.
- Pre-positioning of peace forces that can intervene in case of renewed hostilities.
- Control of heavy weapons.
- Mine clearance.
- Formal protest procedures for the belligerent parties.

(2) Establish the proper context. The commander must earn the trust and confidence of each opposing party. This includes establishing an atmosphere (and a physical setting) that participants will judge to be both fair and safe. These considerations apply:

- Always conduct joint negotiations on matters that affect both parties.
- When serving as a mediator, remain neutral at all times.
- Learn as much as possible about the belligerents, the details of the dispute or issue being negotiated, and other factors such as the geography of the area and specific limitations or restrictions (for example, the ROE and ROI).
- Gain and keep the trust of the opposing parties by being firm, fair, and polite.
- Use tact, remain patient, and be objective.
- Never deviate from applicable local and national laws and international agreements.

(3) Prepare for the negotiations. Thorough, exacting preparation is another important factor in ensuring the success of the negotiation process. Company personnel should use the following guidelines:

- Negotiate sequentially, from subordinate level to senior level.
- Select and prepare a meeting place that is acceptable to all parties.
- Arrange for interpreters and adequate communications facilities, as necessary.
- Ensure that all opposing parties, as well as the negotiating company, use a common map (edition and scale).
- Coordinate all necessary movement.
- Establish local security.

- Keep higher headquarters informed throughout preparation and during the negotiations.
- Make arrangements to record the negotiations (use audio or video recording equipment, if available).

(4) Conduct the negotiations. Negotiators must always strive to maintain control of the session. They must be firm, yet evenhanded, in leading the discussion. At the same time, they must be flexible, with a willingness to accept recommendations from the opposing parties and from their own assistants and advisors. The following procedures and guidelines apply:

- Exchange greetings.
- Introduce all participants by name, including negotiators and any advisors.
- Consider the use of small talk at the beginning of the session to put the participants at ease.
- Allow each side to state its case without interruption and without making premature judgments.
- Make a record of issues presented by both sides.
- If one side makes a statement that is incorrect, be prepared to produce evidence or proof to establish the facts.
- If the negotiating team or peacekeeping force has a preferred solution, present it and encourage both sides to accept it.
- Close the meeting by explaining to both sides what has been agreed upon and what actions they are expected to take. If necessary, be prepared to present this information in writing for their signatures.
- Do not negotiate or make deals in the presence of the media.
- Maintain the highest standards of conduct at all times.

8-20. MONITOR COMPLIANCE WITH AN AGREEMENT

Compliance monitoring involves observing belligerents and working with them to ensure they meet the conditions of one or more applicable agreements. Examples of the process include overseeing the separation of opposing combat elements, the withdrawal of heavy weapons from a sector, or the clearance of a minefield. Planning for compliance monitoring should cover, but is not limited to, the following considerations:

a. Liaison teams, with suitable communications and transportation assets, are assigned to the headquarters of the opposing sides. Liaison personnel maintain communications with the leaders of their assigned element and talk directly to each other and to their mutual commander (the SBCT infantry company or SBCT battalion commander).

b. The commander positions himself at the point where violations are most likely to occur.

c. He positions platoons and squads where they can observe the opposing parties, instructing them to assess compliance and report any violations.

d. As directed, the commander keeps higher headquarters informed of all developments, including his assessment of compliance and noncompliance.

8-21. ESTABLISH OBSERVATION POSTS

Construction and manning of OPs is a high-frequency task for SBCT infantry companies and subordinate elements when they must establish area security during stability operations. Each OP is established for a specified time and purpose. During most stability operations, OPs are overt (conspicuously visible, unlike their tactical counterparts) and deliberately constructed. Each OP must be integrated into supporting direct and indirect fire plans and into the overall observation plan. Based on METT-TC factors, deliberate OPs may include specialized facilities such as the following:

- Observation towers.
- Ammunition and fuel storage areas.
- Power sources.
- Supporting helipads.
- Kitchens, sleep areas, showers, and toilets.

They are similar in construction to bunkers (see FM 5-103) and are supported by fighting positions, barriers, and patrols (Figure 8-2).

NOTE: If necessary, the company can also employ hasty OPs, which are similar to individual fighting positions.

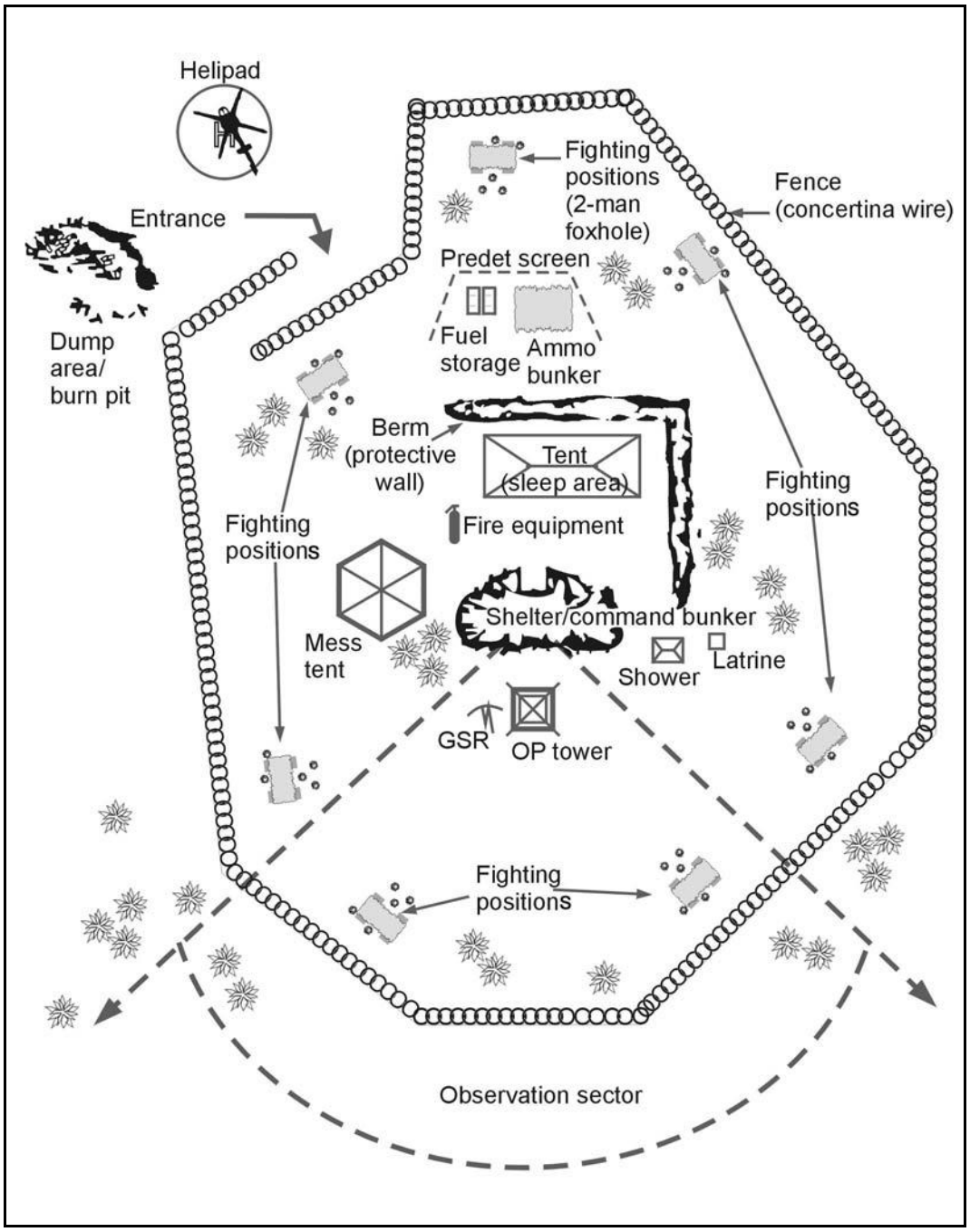


Figure 8-2. Example deliberate observation post.

8-22. ESTABLISH CHECKPOINTS

Establishment of checkpoints is a high-frequency task for SBCT infantry company and subordinate elements involved in stability operations. Checkpoints can be either deliberate or hasty.

a. **Purposes.** The SBCT infantry company or a subordinate element may be directed to establish a checkpoint to achieve one or more of the following purposes:

- Deter illegal movement.
- Create an instant roadblock.
- Control movement into the area of operations or onto a specific route.
- Demonstrate the presence of peace forces.
- Prevent smuggling of contraband.
- Enforce the terms of peace agreements.
- Serve as an OP, patrol base, or both.

b. **Checkpoint Procedures.** Checkpoint layout, construction, and manning should reflect METT-TC factors, including the amount of time available for emplacing it (Figure 8-3). The following procedures and considerations may apply:

(1) Position the checkpoint where it is visible and where traffic cannot turn back, get off the road, or bypass the checkpoint without being observed.

(2) Position a combat vehicle, selected based upon METT-TC, off the road, but within sight, to deter resistance to soldiers manning the checkpoint. The vehicle should be in a hull-down position and protected by local security. It must be able to engage vehicles attempting to break through or bypass the checkpoint.

(3) Place obstacles in the road to slow or canalize traffic into the search area.

(4) Establish a reserve if applicable.

(5) Establish a bypass lane for approved convoy traffic.

(6) Establish wire communications within the checkpoint area to connect the checkpoint bunker, combat vehicle, search area, security forces, rest area, and any other elements involved in the operation.

(7) Designate the search area. If possible, it should be belowground to provide protection against such incidents as the explosion of a booby-trapped vehicle. Establish a parking area adjacent to the search area. Women normally are only checked with a metal detector or searched by female personnel.

(8) If applicable, checkpoint personnel should include linguists.

(9) Properly construct and equip the checkpoint. Consider inclusion of the following items:

- Barrels filled with sand, concrete, or water (emplaced to slow and canalize vehicles).
- Concertina wire (emplaced to control movement around the checkpoint).
- Secure facilities for radio and wire communications with the controlling headquarters.
- First-aid kit.
- Sandbags for defensive positions.
- Wood or other materials for the checkpoint bunker.
- Binoculars, night vision devices, and flashlights.
- Long-handled mirrors (for use in inspections of vehicle undercarriages).

(10) Elements manning a deliberate CP may require access to specialized equipment such as--

- Floodlights.
- Duty logs.
- Flags and unit signs.

- Barrier poles that can be raised and lowered.
- Generators with electric wire.

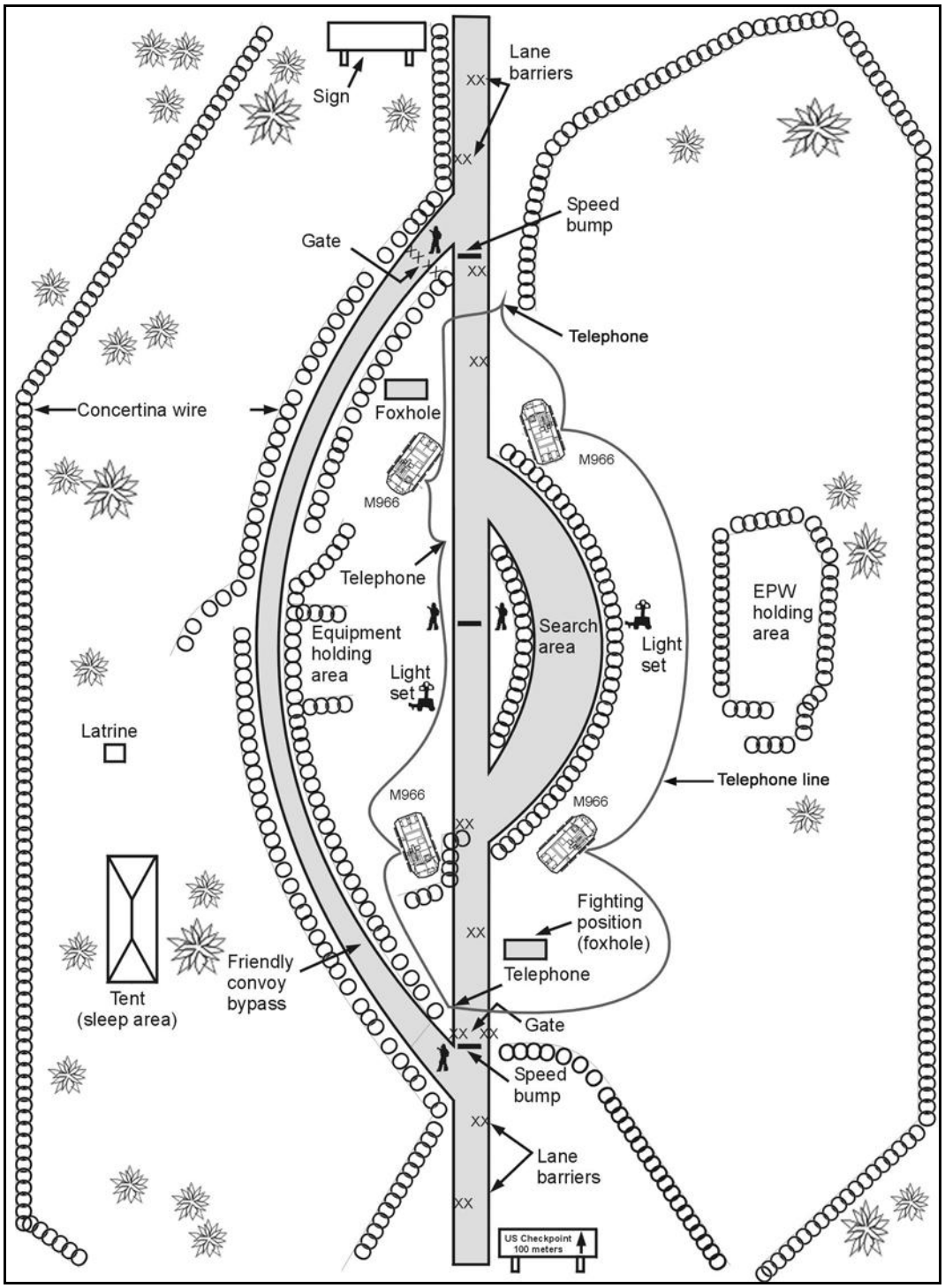


Figure 8-3. Checkpoint layout.

8-23. CONDUCT PATROL OPERATIONS

Patrolling is also a high-frequency task during stability operations. Planning and execution of an area security patrol are similar to procedures for other tactical patrols except that patrol leaders must consider political implications and ROE. Figure 8-4 illustrates the use of patrols, in conjunction with checkpoints and OPs, in enforcing a zone of separation between belligerent forces.

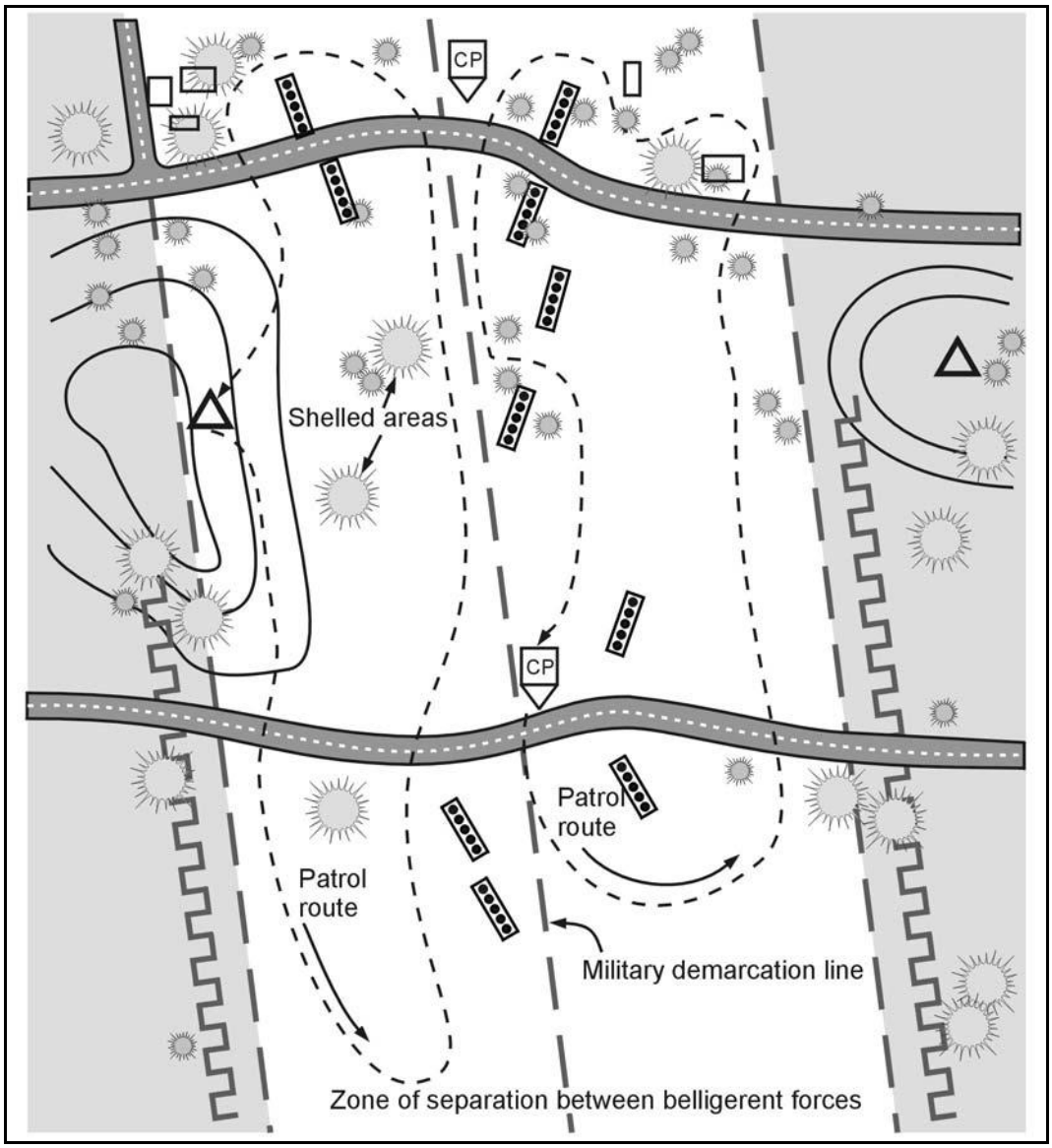


Figure 8-4. Employment of checkpoints, OPs, and patrols to enforce a zone of separation.

8-24. CONDUCT CONVOY ESCORT

This mission requires the SBCT infantry company to provide a convoy with security and close-in protection from direct fire while on the move (Figure 8-5). The SBCT battalion may choose this course of action if enemy contact is imminent or when it anticipates a

serious threat to the security of the convoy. Depending on METT-TC factors, the company is capable of providing effective protection for a large convoy.

NOTE: Lighter security forces such as military police units may conduct smaller-scale convoy escort operations.

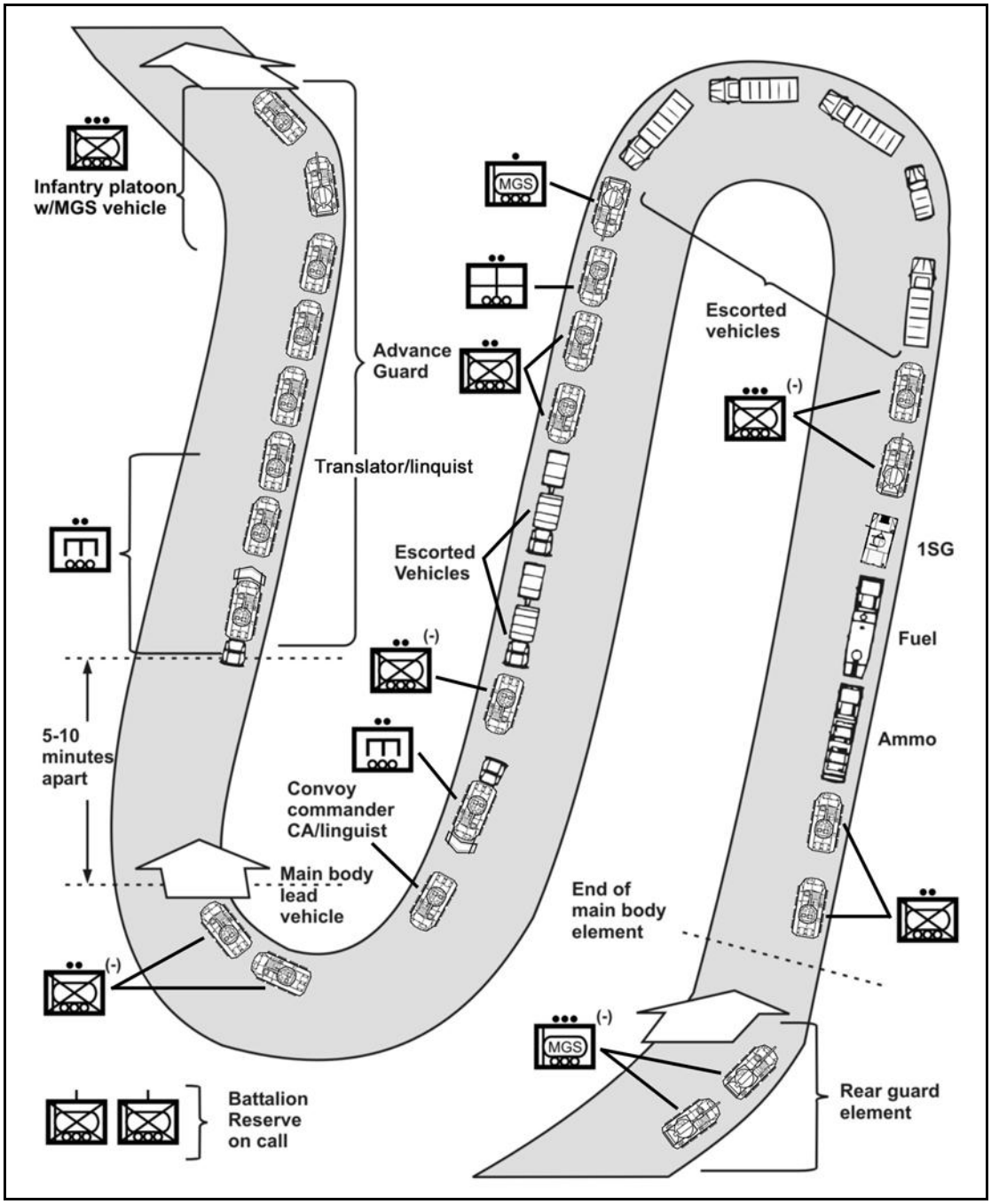


Figure 8-5. Company convoy escort mission.

a. **Command and Control.** The task organization inherent in convoy escort missions makes battle command especially critical. The SBCT infantry company

commander may serve either as the convoy security commander or as overall convoy commander. In the latter role, he is responsible for the employment not only of his own organic combat elements but also of CS and CSS attachments and drivers of the escorted vehicles. He must incorporate all these elements into the various contingency plans developed for the operation. He must also maintain his link with the controlling TOC.

(1) Effective SOPs and drills must supplement OPORD information for the convoy, and the company should conduct rehearsals if time permits. Additionally, the company should conduct extensive precombat checks (PCCs) and PCIs, to include inspection of the escorted vehicles. The commander must also ensure that the company conducts all required coordination with units and elements in areas through which the convoy will pass.

(2) Before the mission begins, the convoy commander should issue a complete OPORD to all vehicle commanders in the convoy. This is vital because the convoy may itself be task-organized from a variety of units and because some vehicles may not have tactical radios. The order should follow the standard five-paragraph OPORD format; it may place special emphasis on these subjects:

- Inspection of convoy vehicles.
- Route of march (including a strip map for each vehicle commander).
- Order of march.
- Actions at halts (scheduled and unscheduled).
- Actions in case of vehicle breakdown.
- Actions for a break in column.
- Actions in built-up areas.
- Actions on contact, covering such situations as snipers, enemy contact (including near or far ambush), indirect fire, mine strike, and minefields.
- Riot drill.
- Refugee control drill.
- Evacuation drill.
- Actions at the delivery site.
- Chain of command.
- Guidelines and procedures for negotiating with local authorities.
- Communications and signal information.
- Tactical disposition.
- Fire support plan.

(3) In any escort operation, the basic mission of the convoy commander (and, as applicable, the convoy security commander) is to establish and maintain security in all directions and throughout the length of the convoy. He must be prepared to adjust the disposition of the security force to fit the security requirements of each particular situation. Several factors affect this disposition, including METT-TC, convoy size, organization of the convoy, and types of vehicles involved. In some instances, the commander may position security elements, such as platoons, to the front, rear, and or flanks of the convoy. As an alternative, he may disperse the combat vehicles throughout the convoy body.

b. **Task Organization.** When sufficient escort assets are available, the convoy commander usually organizes convoy security into three distinct elements: advance

guard, close-in protective group, and rear guard. He may also designate an additional reserve in the rear guard to handle contingency situations. The following paragraphs examine the role of the advance guard, of security assets accompanying the convoy main body, and of the reserve in the rear guard.

NOTE: The convoy escort is provided with linguists as required.

(1) ***Advance Guard.*** The advance guard reconnoiters and proofs the convoy route. It searches for signs of enemy activity, such as ambushes and obstacles. Within its capabilities, it attempts to clear the route. The distance and time separation between the advance guard and the main body should be sufficient to provide the convoy commander with adequate early warning before the arrival of the vehicle column. However, the separation should be short enough that the route cannot be interdicted between the passage of the advance guard and the arrival of the main body. The advance guard should be task-organized with reconnaissance and mobility assets. As necessary, it should also include linguists.

(2) ***Main Body.*** The commander may choose to intersperse security elements with the vehicles of the convoy main body. These may include combat elements (including the rear guard), the convoy commander, additional linguists, mobility assets, and medical and maintenance support assets. Depending on METT-TC, the convoy commander may also consider the employment of flank security.

(3) ***Rear Guard.*** The rear guard serves as a reserve and either moves with the convoy or locates at a staging area close enough to provide immediate interdiction against enemy forces. The supporting headquarters normally designates an additional reserve, consisting of an additional company or combat aviation assets, to support the convoy operation.

c. **Actions on Contact.** As the convoy moves to its new location, the enemy may attempt to harass or destroy it. This contact usually occurs in the form of an ambush, often executed in coordination with the use of a hasty obstacle. In such a situation, the safety of the convoy rests on the speed and effectiveness with which escort elements can execute appropriate actions on contact. Based on the factors of METT-TC, portions of the convoy security force, such as a MGS platoon or section, may be designated as a reaction force. This element performs its normal escort duties, such as conducting tactical movement or occupying an assembly area, as required until enemy contact occurs; it then performs a reaction mission given by the convoy commander.

(1) ***Actions at an Ambush.*** An ambush is one of the most effective ways to interdict a convoy. Reaction to an ambush must be immediate, overwhelming, and decisive. Actions on contact in response to an ambush must be planned for and rehearsed so they can be executed as a drill by all escort and convoy elements, with particular attention given to fratricide prevention. In almost all situations, the security force takes several specific, instantaneous actions in reacting to an ambush. These steps include the following:

(a) As soon as they acquire an enemy force, the escort vehicles immediately lay down suppressive fires in the direction of the attack and attempt to clear the kill zone quickly. They seek covered positions between the convoy and the enemy and suppress the enemy with the highest possible volume of fire. They send contact reports to higher headquarters as quickly as possible.

(b) Convoy vehicles, if they are armed, may return fire only if the security force has not positioned itself between the convoy and the enemy force.

(c) The convoy commander retains control of the convoy vehicles and continues to move them along the route at the highest possible speed.

(d) Subordinate leaders or the convoy commander may request that any damaged or disabled vehicles be abandoned and pushed off the route.

(e) The convoy escort leader uses situational reports to keep the convoy security commander informed. If necessary, the convoy escort leader can then direct a reserve force from the rear guard or the staging area to take action; he can also call for and adjust indirect fires.

(f) Once the convoy is clear of the kill zone, the convoy escort element executes one of the following COAs based on the composition of the escort and reaction forces, the commander's intent, and the strength of the enemy force:

- Continue to suppress the enemy as the reserve moves to provide support.
- Break contact and move out of the kill zone.
- Assault the enemy.

(2) ***Actions at an Obstacle.*** Obstacles are obstructions that prevent advancing movement. They include, but are not limited to, deliberate roadblocks, disabled vehicles, and large groups of demonstrators. Obstacles pose a major threat to convoy security and can canalize or stop the convoy to set up an enemy ambush. The purpose of route reconnaissance ahead of a convoy is to identify obstacles and either breach them or find bypasses. In some cases, however, the enemy or its obstacles may avoid detection by the reconnaissance element. If this happens, the convoy must take actions to reduce or bypass the obstacle.

(a) When an obstacle is identified, the convoy escort faces two problems: reducing or bypassing the obstacle and maintaining protection for the convoy. Security becomes critical, and actions at the obstacle must be accomplished very quickly. The convoy commander must assume that the obstacle is overwatched and covered by enemy fires.

(b) To reduce the time the convoy is halted, thus reducing its vulnerability, these actions should occur when the convoy escort encounters point-type obstacles:

- The advance guard element identifies the obstacle, and the convoy commander directs the convoy to make a short halt and establish security.
- The convoy escort element overwatches the obstacle and requests to the convoy commander that the breach force move forward.
- The escort maintains 360-degree security and provides overwatch as the breach force reconnoiters the obstacle in search of a bypass.
- Once all reconnaissance is complete, the convoy commander determines which of the following COAs he will take:
  - Bypass the obstacle.
  - Breach the obstacle with the assets on hand.
  - Breach the obstacle with reinforcing assets.

NOTE: The convoy may encounter obstacles such as an impromptu checkpoint established by civilians or noncombat elements. If the checkpoint cannot be bypassed or breached, the commander must be prepared to negotiate passage for the convoy.

- The commander relays situational reports higher and, if necessary, requests support from combat reaction forces, engineer assets (if they are not part of the convoy), and aerial reconnaissance elements.
- Artillery units or the supporting mortar sections are alerted to provide fire support.

(3) ***Actions during a Halt.*** During a short halt, the convoy escort remains at REDCON-1 status regardless of what actions other convoy vehicles are taking. If the halt is for any reason other than an obstacle, the convoy escort takes the following actions:

(a) The convoy commander signals the short halt and transmits the order via tactical radio. Based on METT-TC factors, he directs all vehicles in the convoy to execute the designated formation or drill for the halt.

(b) Ideally, the convoy assumes a herringbone or coil formation. If the sides of the road are untrafficable or are mined, however, noncombat vehicles may simply pull over and establish 360-degree security as best they can. This allows movement of the escort vehicles through the convoy main body as necessary.

(c) If possible, escort vehicles are positioned up to 100 meters beyond other convoy vehicles, which are just clear of the route. Escort vehicles remain at REDCON-1 but establish local security based on the factors of METT-TC.

(d) When given the order to continue, convoy vehicles reestablish the movement formation, leaving space for escort vehicles. Once the convoy is in column, local security elements (if used) return to their vehicles, and the escort vehicles rejoin the column.

(e) When all elements are in column, the convoy resumes movement.

8-25. OPEN AND SECURE ROUTES

This task is a mobility operation normally conducted by the engineers. The SBCT infantry company may be tasked to assist in route clearance and to provide overwatch support. Route clearance may achieve one of several tactical purposes:

- To clear a route for the initial entry of the SBCT battalion into an area of operations.
- To clear a route ahead of a planned convoy to ensure that belligerent elements have not emplaced new obstacles since the last time the route was cleared.
- To secure the route to make it safe for use as a main supply route (MSR).

The planning considerations associated with opening and securing a route are similar to those for a convoy escort operation. The company commander must analyze the route and develop contingency plans covering such possibilities as likely ambush locations and sites that are likely to be mined. The size and composition of a team charged with opening and securing a route is based on METT-TC. (For information on combined-arms route clearance operations, refer to FM 20-32.)

8-26. CONDUCT RESERVE OPERATIONS

Reserve operations in the stability environment are similar to those in other tactical operations in that they allow the SBCT infantry company commander to plan for a variety of contingencies based on the higher unit's mission. As noted throughout this section, the reserve may play a critical role in almost any stability activity or mission, including lodgment area establishment, convoy escort, and area security.

a. The reserve force must be prepared at all times to execute its operations within the time limits specified by the controlling headquarters.

b. The controlling headquarters may also tailor the size and composition of the reserve according to the mission it is assigned. If the reserve is supporting a convoy mission, it may consist of a company. In a mission to support established checkpoints, the reserve force may be the dismounted infantry elements from a platoon or company, supported by aviation assets.

CHAPTER 9
SUPPORT OPERATIONS

US military forces conduct support operations to assist foreign and domestic civil authorities or designated groups by providing essential supplies and services in the face of adverse conditions, usually disease, hunger, or the consequences of disasters. Mission success in support operations, which are normally characterized by the lack of an active opponent, is measured in terms of the ability to relieve suffering and to help civil authorities respond to crises. The ultimate goals of these operations are to meet the immediate needs of the supported groups and to transfer responsibility quickly and efficiently to appropriate civilian authorities. Support operations are usually nonlinear and noncontiguous. Support operations may complement offensive, defensive, or stability operations (before, during, and after execution). (Refer to the discussions of SBCT infantry company operations in Chapter 4 [offense] and Chapter 5 [defense] and for a more detailed examination of support operations, refer to FM 3-0.)

Section I. CHARACTERISTICS OF SUPPORT OPERATIONS

Support operations involve Army forces providing essential supplies, capabilities, and services to help civil authorities deal with situations beyond their control. In most cases, Army forces focus on overcoming conditions created by natural or manmade disasters. Army forces may provide relief or assistance directly, but Army activities in support operations most often involve setting the conditions that facilitate the provision of required direct support to the affected population by civil authorities or NGOs.

9-1. TYPES OF SUPPORT OPERATIONS

The types of support operations are domestic support operations (DSOs) and foreign humanitarian assistance (FHA) operations. They share four forms of operations, which occur to varying degrees in both DSO and FHA operations: relief operations, support to incidents involving chemical, biological, radiological, nuclear, and high-yield explosive consequence management (CBRNE-CM); support to civil law enforcement; and community assistance. The US Army conducts DSOs in the US and its territories, using active and reserve components. It conducts FHA operations abroad and under the direction of a combatant commander. Domestic emergencies can require Army forces to respond with multiple capabilities and services. For this reason, they may conduct the four forms of support operations simultaneously during a given operation.

9-2. DOMESTIC SUPPORT OPERATIONS

DSOs supplement the efforts and resources of state and local governments and NGOs within the United States. During DSOs, the US military always responds in support of another civilian agency. DSOs also include those activities and measures taken by the Department of Defense (DOD) to foster mutual assistance and support between the DOD and any civil government agency. These include planning or preparedness for, or in the application of resources for response to, the consequences of civil emergencies or attacks,

including national security emergencies or major disasters. A presidential declaration of an emergency or disaster area usually precedes a DSO.

a. The US military provides domestic support primarily in accordance with a DOD directive for military assistance to civil authorities. The military assistance to civil authorities directive addresses responses to both natural and manmade disasters and includes military assistance with civil disturbances, counterdrug activities, counterterrorism activities, and law enforcement.

b. In accordance with the Constitution, civilian government is responsible for preserving public order. However, the Constitution does allow the use of military forces to protect federal and civilian property and functions. The Posse Comitatus Act restricts the use of the military in federal status and prevents it from executing laws and performing civilian law enforcement functions within the US.

c. DSOs focus on the condition of all types of natural and manmade properties with the goal of helping to protect and restore these properties, as requested. Typically, environmental operations are conducted in response to such events as forest and grassland fires, hazardous material releases, floods, and earthquakes.

9-3. FOREIGN HUMANITARIAN ASSISTANCE

US forces conduct FHA operations outside the borders of the US or its territories to relieve or reduce the results of natural or manmade disasters or other endemic conditions, such as human suffering, disease, or deprivation, that might present a serious threat to life or that can result in great damage to or loss of property.

a. The US military typically supplements the host nation authorities in concert with other governmental agencies, nongovernmental organizations, private voluntary organizations, and unaffiliated individuals. The majority of foreign humanitarian assistance operations closely resemble domestic support operations. The distinction between the two is the legal restrictions applied to US forces inside the US and its territories. Posse Comitatus does not apply to US forces overseas.

b. Foreign humanitarian assistance operations are limited in scope and duration. They focus exclusively on prompt aid to resolve an immediate crisis. Crises or disasters caused by hostile individuals or factions attacking their government are normally classified as stability rather than support operations. In environments where the situation is vague or hostile, support activities are considered a subset of a larger stability or offensive or defensive operation.

Section II. FORMS OF SUPPORT OPERATIONS

During DSOs, Army forces perform relief operations and provide support to incidents involving weapons of mass destruction (WMD), support to civil law enforcement, and community assistance. In FHA operations, Army forces most often conduct relief operations; however, FHA may also involve support to incidents involving CBRNE-CM, and community assistance. Army forces involved in support operations execute overlapping activities.

9-4. RELIEF OPERATIONS

State, local, and host nation authorities are responsible for restoring essential services in the case of a disaster. To support their efforts or those of the lead agency, the National

Command Authority (NCA) can deploy Army forces. Army forces execute similar actions during relief operations in DSO and FHA. Humanitarian relief focuses on the well being of supported populations. Disaster relief focuses on recovery of critical infrastructure after a natural or manmade disaster. Both normally occur simultaneously.

9-5. SUPPORT TO DOMESTIC CBRNE CONSEQUENCE MANAGEMENT. Military operations assist civil authorities in protecting US territory, population, and infrastructure prior to an attack by supporting domestic preparedness and critical asset protection programs. If an attack occurs, military support responds to the consequences of the attack.

a. **Domestic Preparedness.** The Army's role in facilitating domestic preparedness is to strengthen the existing expertise of civil authorities. This is done in two primary areas: response and training. Response is the immediate reaction to an attack; training includes what happens after the attack.

b. **Protection of Critical Assets.** The purpose of this program is to identify critical assets and to assure their integrity, availability, survivability, and capability to support vital DOD missions across the full spectrum of military operations. Critical assets include telecommunications, electric power, gas and oil, banking and finance, transportation, water, and emergency services. An attack on any of these assets may disrupt civilian commerce, government operations, and the military.

c. **Response to CBRNE Incidents.** The initial response to the use of WMD is primarily from local assets, but sustained Army participation may be required soon afterward. The Army's capabilities in this environment are--

- Detection.
- Decontamination and medical care, including assessment.
- Triage treatment.
- Medical evacuation (MEDEVAC).
- Hospitalization.
- Follow-up on victims of chemical and biological agents.

9-6. SUPPORT TO CIVIL LAW ENFORCEMENT

Support to domestic civil law enforcement involves activities related to counterterrorism, counterdrug operations, military assistance during civil disturbances, and general support with providing resources, training, or augmentation. Federal military forces remain under the military chain of command while supporting civil law enforcement. The supported law enforcement agency coordinates Army force activities in accordance with appropriate civil laws and interagency agreements. Army national guard (ARNG) units in "state" status can be a particularly useful military resource. They may be able to provide assistance to civil authorities when federal units cannot meet the provisions of the Posse Comitatus Act.

9-7. COMMUNITY ASSISTANCE

Community assistance is a broad range of activities that provide support and maintain a strong connection between the military and civilian communities. Community assistance activities provide effective means of projecting a positive military image, providing training opportunities, and enhancing the relationship between the Army and the

American public. These activities should fulfill community needs that would not otherwise be met. Community activities can enhance individual and unit combat readiness. Projects should exercise individual soldier skills, encourage teamwork, and challenge leaders' planning and coordination skills. They should result in measurable accomplishments and increase soldier proficiency. Commanders of forward-deployed Army units may also apply those concepts when fostering or establishing relationships with host nation communities.

a. Community assistance at the national level enhances a cooperative relationship between the military and American people. National efforts take advantage of the technical, vocational, and group skills of military professionals. They supplement programs available from the civil sector and other government agencies. The Army's involvement in a variety of assistance programs focuses on economic and social issues that have long-term national security implications. They provide opportunities for the Army to contribute to the growth and welfare of the nation, thus improving the nation's perception of the military. Army and DOD regulations provide guidance on national-level programs.

b. The Army has extensive national-level responsibilities related to public works maintenance and management. The Department of Army exercises its federal engineering executive responsibilities through the US Army Corps of Engineers (USACE). The USACE manages much of the nation's public works infrastructure. Executed principally, but not solely, through the civil works directorate, this military organization integrates complex federal, state, and local regulations and policies governing the national infrastructure. These include the national waterways, environmental remediation and recovery operations, real estate, disaster recovery operations, and general project management functions.

c. State and local efforts also improve the community's perception of the Army. Community assistance varies widely ranging from individual soldier involvement to full installation participation. An installation or organization can enter into an agreement with the local community to provide critical services not available in the community, to augment community services unable to meet demand, or to ensure that emergency services are available in the shortest possible time.

d. Army participation in public events, memorials, and exhibits facilitates interaction between soldiers and the local community. This contact communicates the professionalism, readiness, and standards of the Army. Individual soldiers serve as representatives and role models to the civilian community, promote and inspire patriotism, and generate interest in the Army. This increased public awareness enhances the Army's reputation and secures the confidence of the American people.

e. Laws, regulations, and policies limit Army participation in community assistance activities. Commanders consider the objective and purpose of community assistance and the limitations under which Army participation in community assistance activities is authorized. Commanders ensure that their initiatives do not compete with local resources or services and do not result in remuneration in any form. Commanders also avoid providing assistance and support to one segment of a community when they cannot also provide the same assistance to others. Actions that appear to benefit a particular group can foster perceptions of bias or partisanship. Ideally, support should be provided only to events and activities of common interest and benefit across the community.

Section III. CONSIDERATIONS FOR SUPPORT OPERATIONS

Although each support operation is different, troop-leading procedures used in offensive, defensive, and stability operations still apply. The following considerations supplement those processes and can help commanders develop tailored concepts and schemes for support operations.

9-8. PROVIDE ESSENTIAL SUPPORT TO THE LARGEST NUMBER OF PEOPLE

The principle of essential support to the largest number guides prioritization and allocation. Commanders allocate finite resources to achieve the greatest good.

a. Initial efforts usually focus on restoring vital services, which include food and water distribution, medical aid, power generation, search and rescue, firefighting, and community relations. It may be necessary to complete a lower-priority task before accomplishing a higher one. For example, Army forces may have to restore limited electrical services before restoring hospital emergency rooms and shelter operations.

b. Commanders assess requirements to employ Army forces effectively. They determine how and where to apply limited assets to benefit the most people. In some cases, warfighting reconnaissance capabilities and techniques are adaptable to support operation requirements. For example, unmanned aerial vehicles can survey relief routes and locate civilian refugee groups. Standard information collection methods are reinforced and supplemented by civil affairs or dedicated disaster assessment teams as well as interagency, host nation, and NGO sources. The combination of traditional and nontraditional information support allows commanders to obtain a clear understanding of the situation and adjust plans accordingly.

9-9. COORDINATE ACTIONS WITH OTHER AGENCIES

DSOs and FHA operations are typically joint and interagency; FHA operations are also multinational. The potential for duplication of effort and working at cross-purposes is high. Unity of effort requires, as a minimum, common understanding of purposes and direction among all agencies. Ensuring unity of effort and efficient use of resources requires constant coordination. Army forces enhance unity of effort by establishing a civil military operations center (CMOC) in FHA operations and by providing liaison elements, planning support, advisors, and technical experts to lead civil authority in DSOs. Commanders determine where their objectives and plans complement or conflict with those of other key agencies through these contacts

9-10. ESTABLISH MEASURES OF EFFECTIVENESS

In conjunction with supported agencies and governments, commanders establish relevant measures of effectiveness (MOEs), similar to the tactical METT-TC factors considered during mission analysis, to gauge mission accomplishment. MOEs focus on the condition and activity of those being supported. Because they are discrete and measurable and they link cause and effect, they are helpful in measuring the progress and success of the operation. In famine relief, for example, it may be tempting to measure effectiveness only by the gross amount of food delivered. This may be an acceptable MOE, but a better MOE may be the total nourishment delivered, as measured by the total number of calories delivered per person per day or the rate of decline of deaths directly attributable

to starvation. MOEs are situation-dependent and require readjustment as situations and guidance change.

9-11. HAND OVER TO CIVILIAN AGENCIES AS SOON AS FEASIBLE

The timing and feasibility of the handover from military to civilian authorities depends on mission-specific considerations. The two most important considerations are the ability of civil authorities to resume operations without Army assistance and the necessity of committing Army forces to competing operations. Commanders identify and include civil considerations as early as possible in the planning process. Commanders must continually consider the long-term goals of the civil leadership and the communities they assist. While the immediate goal of support operations is to relieve hardship and suffering, the ultimate goal is to create those conditions necessary for civil follow-on operations. The successful handover of all activities to civil authorities and withdrawal of Army forces is a positive signal to the supported population and the Army. It indicates that the community has recovered enough for civil agencies to resume control, that life is beginning to return to normal, and that the Army has successfully completed its support mission.

Section IV. PHASES OF SUPPORT OPERATIONS

Although each operation is unique, support operations are generally conducted in three broad phases: response, recovery, and restoration. Army elements can expect to be most heavily committed during the response phase. They are progressively less involved during the recovery phase, with only very limited activity, if any, during the restoration phase.

9-12. RESPONSE PHASE

In the response phase, commanders focus on the life-sustaining functions that are required by those in the disaster area. The following functions dominate these response operations:

- Search and rescue.
- Emergency flood control.
- Hazard identification.
- Food distribution.
- Water production, purification, and distribution.
- Temporary shelter construction and administration.
- Transportation support.
- Fire fighting.
- Medical support.
- Power generation.
- Communications support.

9-13. RECOVERY PHASE

Recovery phase operations begin the process of returning the community infrastructure and related services to a status that meets the immediate needs of the population. Typical recovery operations include the following:

- Continuation of response operations as needed.
- Damage assessment.
- Power distribution.
- Water and sanitation services.
- Debris removal.

9-14. RESTORATION PHASE

Restoration is a long-term process that returns the community to pre-disaster normality. Restoration activities do not generally involve large numbers of military forces. When they are involved, Army elements generally work with affected communities in the transfer of responsibility to other agencies as military support forces redeploy.

CHAPTER 10

COMBAT SUPPORT OPERATIONS

For a unit to achieve its full combat potential, the commander must effectively integrate all available combat support assets. This chapter focuses on the CS elements with which the SBCT infantry company is most likely to work: fire support, engineers, air defense, NBC, intelligence, and Army aviation in its CS role. Other CS elements include signal and military police, but the SBCT infantry company is very rarely task organized with those types of units.

Section I. COMMAND AND SUPPORT RELATIONSHIPS

The SBCT infantry company commander must understand the command or support relationships established between his company and supporting units.

10-1. COMMAND RELATIONSHIPS

Command responsibility and authority are established routinely through the following standard relationships:

a. **Organic.** This is a unit that forms an essential part of an Army organization and is listed in its table of organization and equipment (TO&E) or table of distribution and allowances (TDA).

b. **Assigned.** This is a unit that is placed in an organization on a permanent basis and is controlled and administered by the organization to which it is assigned.

c. **Attached.** In this relationship, a unit is assigned temporarily to a command other than its parent unit. The attached unit is under the command of the commander of the unit to which it is attached.

(1) The commanding officer exercises the same degree of C2 as with his organic units.

(2) C2 is subject to limitations specified by the commander directing the attachment. This relationship includes the responsibility for logistics, training, operations, and uniform code of military justice; however, the parent unit retains responsibility for transfer and promotion.

(3) Having a unit attached imposes an administrative and logistical burden on the unit to which the attachment is made.

d. **Operational Control.** This relationship places a unit under the control of a commander for specific operations. The relationship is limited by function, time, or location. OPCON does not imply responsibility for administration, logistics, discipline, internal organization, or training. The commander's relationship with OPCON units is otherwise the same as with organic or attached subordinate units.

10-2. SUPPORT RELATIONSHIPS

Support is the action of an element or unit that aids, protects, complements, or sustains another unit IAW an order requiring such support. A supporting unit assists another unit but is not under the command of that unit. The commander's relationship with supporting units is as follows:

- He ensures that the supporting unit establishes liaison and communications with his unit.
- He keeps the supporting unit informed of the situation and the support needed.
- The leader of the supporting unit advises him on its employment considerations.
- A supporting unit honors his request for support as an order. In case of a conflict, the supporting unit leader refers the matter to his parent unit commander. The request or order in question is honored, however, until the conflict is resolved.

a. **Direct Support.** A unit in DS supports another specific unit but remains under the command of its parent unit commander. The supporting unit answers directly to the supported unit's requests. The company commander may not reallocate, reassign, or task-organize the DS force supporting him.

b. **General Suppor.**. Units in general support (GS) to the battalion are under control of their parent unit commander. They support the battalion as a whole, not any specific company. Company commanders may request support from the GS unit through the battalion.

c. **Reinforcing.** Reinforcing is a tactical artillery mission in which an artillery unit augments the fire of another artillery unit. Coordination for support is normally provided through the DS artillery unit.

d. **General Support Reinforcing.** General support-reinforcing (GS-R) artillery is a tactical artillery mission where an artillery unit has the mission of supporting the force as a whole and of providing reinforcing fires for another artillery unit. Coordination for support is the responsibility of the DS artillery unit.

Section II. FIRES SUPPORT

Fires and effects are the collective and coordinated use of indirect fire weapons and armed aircraft in support of the battle plan. Fires and effects assets include mortars, field artillery cannons and rockets, and CAS. Fires and effects can be lethal or nonlethal. The integration of fire support assets is critical to the success of the company. The SBCT infantry battalion FSO plans fire (in coordination with the plans developed by the SBCT infantry battalion S3) to support the SBCT infantry battalion commander's concept of the operation. The SBCT infantry company FSO plans company fire support, and the SBCT infantry company commander approves his plan. Fires support planning is the process of analyzing, allocating, and scheduling fires and effects assets.

10-3. INDIRECT FIRE CAPABILITIES

The effects of indirect fires on an enemy force are much greater than the effects of the SBCT infantry company's organic weapons. Artillery provides the most destructive, accurate, and flexible combat multiplier the SBCT infantry company commander has. Table 10-1 lists the capabilities of the indirect fire systems that may support an SBCT infantry company.

CALIBER:	60-mm	81-mm	81-mm (improved)	120-mm	105-mm	155 -mm	155-mm
MODEL:	M224	M29A1	M252	M285	M119	M198	M109A6
MAX RANGE (HE)(m):	3,490	4,595	5,608	7,200	14,000	18,100	18,100
PLANNING RANGE (m):					11,500	14,600	14,600
PROJECTILE:	HE, WP, ILLUM,	HE, WP, ILLUM,	HE, WP, ILLUM, RP	HE, SMK, ILLUM,	HE M760 ILLUM, HEP-T, APICM, CHEM, RAP	HE, WP, ILLUM, SMK, CHEM, NUC, RAP, FASCAM, CPHD, AP/ DPICM	HE, WP, ILLUM, SMK, CHEM, NUC, RAP, FASCAM, CPHD, AP/ DPICM
MAX RATE OF FIRE:	30 RPM FOR 1 MIN	30 RPM FOR 1 MIN	30 RPM FOR 2 MIN	15 RPM FOR 3 MIN	6 RPM FOR 1 MIN	4 RPM FOR 1 MIN	4 RPM FOR 1 MIN
SUSTAINED RATE OF FIRE (rd/min):	20	8	15	5	3	2	2
MINIMUM RANGE (m):	70	70	83	180	DIRECT FIRE	DIRECT FIRE	DIRECT FIRE
FUZES:	MO	PD, VT, TIME, DLY	PD, VT, TIME, DLY	MO	PD, VT, MTSQ, CP, MT, DLY	PD, VT, CP, MT, MTSQ, DLY	PD, VT, CP, MT, MTSQ, DLY

LEGEND:

AP - Armor Piercing
APICM - Antipersonnel Improved Conventional Munitions
CHEM - Chemical
CP - Concrete Piercing
CPHD - Copperhead
DLY - Delay
DPICM - Dual Purpose Improved Conventional Munitions
FASCAM - Family of Scatterable Mines
HE - High Explosive
HEP-T - High Explosive Plastic Tracer
ILLUM - Illumination
MIN - Minute
MO - Multioption - VT, PD, DLY
MT - Mechanical Time
MTSQ - Mechanical Time Super Quick
NUC - Nuclear
PD - Point Detonating
RAP - Rocket Assisted Projectile
RD - Round
RP - Red Phosphorus
RPM - Rounds per Minute
SMK - Smoke
TIME - Adjustable Time Delay
VT - Variable Time
WP - White Phosphorus

Table 10-1. Indirect fire capabilities.

a. Field artillery (FA) can fire a variety of ammunition, including high explosive, illumination, and white phosphorous ammunitions. The 155-mm units also can fire dual-

purpose improved conventional munitions (DPICMs) and scatterable mines (FASCAM). The DPICM is a lethal antipersonnel and antiarmor munition containing bomblets that are dispersed over a wide area because they are ejected high above the target during the flight of the projectile. The bomblets can penetrate up to 4.5 inches of armor. FASCAM rounds contain a number of mines with self-destruct features, which are set to detonate at specific times (Table 10-2). The rounds may contain either antipersonnel or antiarmor mines that arm shortly after impact. Companies do not normally plan or employ FASCAM, but the company commander should be familiar with these weapons. (For more information, see FM 3-21.21 [7-22].)

TYPE OF MINE	ARMING TIME	SELF-DESTRUCT TIMES
Adam (AP)	2 minutes	4 hours or 48 hours
RAAM (AT)	45 seconds	4 hours or 48 hours
GEMSS	45 minutes	5 days or 15 days
MOPMS	2 minutes	4 hours
Gator/Volcano	2 minutes	48 hours or 15 days

Table 10-2. FASCAM arming and self-destruct times.

b. Mortars and artillery fire can be combined to cover targets. For example, mortars can fire illumination while artillery fires high explosives or DPICMs. The SBCT infantry company commander must ensure his company employs each system (mortars, artillery, and direct fire) when and where it has the greatest effect on the enemy.

10-4. FIRE SUPPORT PLANNING AND COORDINATION

SBCT elements conduct fires and effects planning concurrently with maneuver planning at all levels. SBCT infantry battalions typically use top-down fire support planning, with bottom-up refinement of the plans. The commander develops guidance for fires and effects in terms of tasks, purposes, and effects. In turn, the fire support planner determines the method to be used in accomplishing each task. Individual units then incorporate assigned tasks into their fire support plans. In addition, units tasked to initiate fires must refine and rehearse their assigned tasks. The company commander refines his unit's assigned portion of the battalion fire support plan, ensuring that the designated targets will achieve the intended purpose. He also conducts rehearsals to prepare for the mission and, as specified in the plan, directs the company to execute its assigned targets.

a. **Terms and Definitions.**

(1) ***Fire Support Planning***. Fire support planning is the continual process of analyzing, allocating, and scheduling fire support. The goal of fire support planning is to effectively integrate fire support into battle plans to optimize combat power. It is performed as part of the MDMP.

(2) ***Fire Support Coordination.*** Fire support coordination is the continual process of implementing fire support planning and managing the fire support assets that are available to a maneuver force.

(3) ***Fire Planning.*** Fire planning is the continual process of selecting targets on which fires are prearranged to support a phase of the commander's plan.

(4) ***Essential Fire Support Task.*** An EFST is a task that a fire support element must accomplish in order to support a combined-arms operation. Failure to achieve an EFST may require the commander to alter his tactical or operational plan. A fully developed EFST has a task, purpose, method, and effects (TPME). The task describes what targeting objective (for example, delay, disrupt, limit, or destroy) fires must achieve on an enemy formation's function or capability. The purpose describes why the task contributes to maneuver. The method describes how the task will be accomplished by assigning responsibility to observers or units and delivery assets and providing amplifying information or restrictions. Typically, the method is described by covering three categories: priority, allocation, and restrictions. Effects quantify successful accomplishment of the task.

(5) ***Concept of Fires.*** The concept of fires is the logical sequence of EFSTs, integrated with the scheme of maneuver, that will accomplish the mission and achieve the commander's intent. It allocates in broad terms the fire support assets needed to achieve the EFSTs. The concept of fires is the basis of the fires paragraph in the OPORD.

(6) ***Scheme of Fires.*** The scheme of fires is the detailed, logical sequence of targets and fire support events the fire support element uses to find and attack high-payoff targets (HPTs). It details how to execute the fire support plan in accordance with the time and space of the battlefield to accomplish the commander's EFSTs. The products of the fire support annex--fire support execution matrix (FSEM), target list/overlay, and or a target synchronization matrix (TSM)--articulate the scheme of fires.

b. **Linking Tasks and Maneuver Purpose.** A clearly defined maneuver purpose enables the maneuver commander to articulate precisely how he wants fires and effects to affect the enemy during different phases of the battle. This, in turn, allows fires and effects planners to develop a fires and effects plan that effectively supports the intended purpose. The planners can determine each required task (in terms of effects on target), the best method for accomplishing each task (in terms of a fires and effects asset and its fire capabilities), and a means of quantifying accomplishment. A carefully developed method of fire is equally valuable during execution of the fires and effects mission; it assists not only the firing elements but also the observers who are responsible for monitoring the effects of the indirect fires. With a clear understanding of the intended target effects, fires and effects assets and observers can work together effectively, planning and adjusting the fires as necessary to achieve the desired effects on the enemy. The following paragraphs describe several types of targeting objectives associated with fires and effects tasks and provide examples of how the SBCT infantry company commander might link a target task to a specific maneuver purpose in his order.

(1) ***Delay.*** The friendly force uses indirect fires to cause a particular function or action to occur later than the enemy desires. For example, the commander might direct delaying fires this way: "Delay the repositioning of the enemy’s reserve, allowing B Company to consolidate on OBJECTIVE BOB."

(2) ***Disrupt.*** Disrupting fires are employed to break apart the enemy’s formation; to interrupt or delay his tempo and operational timetable; to cause premature commitment of his forces; or to otherwise force him to stage his attack piecemeal. An example of the commander’s direction might be: "Disrupt the easternmost lead motorized battalion to prevent the enemy from massing two battalions against Alpha and Charlie."

(3) ***Limit.*** Indirect fires are used to prevent an action or function from being executed where the enemy wants it to occur. An example of the commander's direction might be: "Limit the ability of the enemy's advance guard to establish a firing line on the ridge line to the flank of the battalion axis of advance to prevent the enemy from fixing the battalion main body."

(4) ***Destroy***. The friendly force uses indirect fires to render an enemy formation ineffective. For example, the commander might direct destroying fires this way: "Destroy enemy platoon on OBJ HARRY in order to allow the main effort to assault OBJ TOM."

(5) ***Divert.*** Diverting fires are employed to cause the enemy to modify his course or route of attack. An example of the commander's direction might be: "Divert the enemy's combined arms reserve counterattack to EA DOG to facilitate its destruction by Delta."

(6) ***Screen.*** Screening fires entail the use of smoke to mask friendly installations, positions, or maneuver. They normally are conducted for a specified event or a specified period of time. An example of the commander's direction might be: "Screen the movement of the counterattack force (B Company) along ROUTE RED to attack by fire (ABF) position 21 to prevent the remnants of the enemy battalion from engaging the company."

(7) ***Obscure.*** Smoke is placed between enemy forces and friendly forces or directly on enemy positions to confuse and disorient the enemy's direct fire gunners and artillery FOs. Obscuration fires are normally conducted for a specified event or a specified period of time. An example of the commander's direction might be: "Obscure the northernmost company to protect our breach force until the breach site is secured."

NOTE: The supported commander also may designate purposes for special munitions such as area denial artillery munition (ADAM)/remote antiarmor munition (RAAM), Copperhead, or illumination rounds.

c. **Final Protective Fire Planning.** FPF planning is designed to create a final barrier, or "steel curtain", to prevent a dismounted enemy from moving across defensive lines. These are fires of last resort and as such they take priority over all other fires, to include priority targets. The employment of FPFs presents several potential problems. They are linear fires, with coverage dependent on the firing sheaf of the fires and effects asset(s). In addition, while an FPF may create a barrier against penetration by enemy infantry, armored vehicles may simply button up and move through the fires into the friendly defensive position. FPFs are planned targets and thus must have a clearly defined purpose. FPF planning normally is delegated to the SBCT infantry company that is allocated the support.

d. **Target Refinement.** The SBCT infantry company commander is responsible for the employment of indirect fires in his zone or sector. The most critical aspect of this responsibility is target refinement, in which he makes necessary changes to the fires and effects plan to ensure that targets accomplish the SBCT infantry battalion or SBCT commander's intended battlefield purpose. Rather than merely executing targets without regard to the actual enemy situation, the company commander and FSO must be ready to adjust existing targets or to nominate new targets that allow engagement of specific enemy forces.

(1) Necessary refinements usually emerge when the SBCT infantry company commander conducts war gaming as part of step 6 (complete the plan) of troop-leading procedures. The war gaming process allows him to identify required additions, deletions, and adjustments to the SBCT infantry battalion fires support plan. The company FSO then submits the refinements to the battalion FSE for inclusion in the scheme of fires for the operation. (This normally is only the first step of target refinement, with the commander and FSO making further adjustments as the enemy situation becomes clearer.)

(2) As a specific requirement in defensive planning, the company commander must focus on target refinement for the ground he will "own" during the operation. This usually takes place as part of engagement area development. The commander makes appropriate adjustments to the targets based on refinements to the SITEMP, such as the actual positions of obstacles and enemy direct fire systems.

(3) Because fires and effects are planned from the top down, cutoff times for target nomination and target refinement normally are specified in the battalion OPORD. Commanders must ensure that nominations and refinements meet these deadlines to provide fire support planners with sufficient time to develop execution plans.

e. **Fires Support Preparation.** As noted, although the SBCT infantry battalion and SBCT commanders establish target tasks and purposes and allocate appropriate fires and effects assets, the SBCT infantry company commander is the one who must ensure execution of assigned targets. In turn, successful execution demands thorough preparation, focusing on areas covered in the following paragraphs.

(1) ***Observation Plan.*** In developing the observation plan, the commander must ensure that both primary and alternate observers cover all targets. The plan must provide clear, precise guidance for the observers. Perhaps the most important aspect of the plan is positioning: observers' positions must allow them to see the trigger for initiating fires as well as the target area and the enemy force on which the target is oriented. The commander must also consider other aspects of observer capabilities, including available equipment. For example, the ground/vehicle laser locator designator (G/VLLD) provides first round fire-for-effect capability; without it, observers may have to use adjust-fire techniques that take longer and are more difficult to implement. The observation plan also must include contingency plans that cover limited visibility conditions and backup communications.

NOTE: In addition to providing the specific guidance outlined in the observation plan, the commander must ensure that each observer understands the target task and purpose for which he is responsible. For example, observers must understand that once the first round impacts, the original target location is of no consequence; rather, they must orient on the targeted enemy force to ensure that fires achieve the intended battlefield purpose.

(2) ***Rehearsals.*** The SBCT infantry company commander is responsible for involving his FSO in company- and battalion-level rehearsals, for making the company available for any separate fires and effects rehearsals, and for rehearsing the company's FOs in the execution of targets. He also should use rehearsals to ensure that the company's primary and backup communications systems will adequately support the plan.

(3) ***Target Adjustment.*** In the defense, the commander should confirm target location by adjusting fires as part of engagement area development.

(4) ***Trigger Planning.*** The company commander develops a trigger for each target. The trigger can be a point on the ground (such as an easily recognizable terrain feature), an emplaced marker, or a designated linear control measure. In the defense, triggers should be marked physically on the ground or their location specifically selected and identified during the development of the engagement area.

NOTE: Triggers can be marked using techniques similar to those for marking TRPs.

(a) The trigger line or point must be tied to clearly understood engagement criteria associated with the targeted enemy force. As an example, the company commander might use the following order to begin indirect fires: "Initiate target AE0001 when approximately 30 APCs and 10 tanks cross TRIGGER LINE ORANGE."

(b) Several factors govern the positioning of the trigger. Especially critical factors are the enemy's rate of travel and the resulting time required for the enemy force to move from the trigger to the target area. Using this information, the commander can then select the trigger location based on the following considerations:

- The amount of time required to initiate the call for fire.
- The time needed by the fires and effects element to prepare for and fire the mission.
- The time required to clear the fires.
- Any built-in or planned delays in the firing sequence.
- The time of flight of the indirect fire rounds.
- Possible adjustment times.

The SBCT infantry company commander can use the information in Tables 10-3 and 10-4 as he completes the process of determining the location of the trigger in relation to the target area. Table 10-3 lists the time required for the enemy force to move a specified distance at a specified rate of march. Table 10-4 lists the response time required by field artillery assets to prepare for and fire various types of support missions.

	DISTANCE TRAVELED									
RATE OF MARCH	**1 km**	**2 km**	**3 km**	**4 km**	**5 km**	**6 km**	**7 km**	**8 km**	**9 km**	**10 km**
60 km/hr	1	2	3	4	5	6	7	8	9	10
50 km/hr	1.2	2.4	3.6	4.8	6	7.2	8.4	9.6	10.8	12
40 km/hr	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15
30 km/hr	2	4	6	8	10	12	14	16	18	20
25 km/hr	2.4	4.8	7.2	9.6	12	14.4	16.8	19.2	21.6	24
20 km/hr	3	6	9	12	15	18	21	24	27	30
15 km/hr	4	8	12	16	20	24	28	32	36	40
10 km/hr	6	12	18	24	30	36	42	48	54	60
5 km/hr	12	24	36	48	60	72	84	96	108	120

Table 10-3. Time (in minutes) required to travel a specified distance.

GRID OR POLAR MISSION (UNPLANNED)	5-7 minutes
PREPLANNED MISSION	3 minutes
PREPLANNED PRIORITY MISSION	1-2 minutes
NOTE: These are approximate times (based on ARTEP standards) needed to process and execute calls for fire on normal artillery targets. Special missions may take longer.	

Table 10-4. Artillery response times.

(5) ***Lifting and Shifting Fires.*** As in trigger planning for the initiation of fires, the commander must establish triggers for lifting and shifting fires based on battlefield events such as the movement of enemy or friendly forces. One technique is the use of a minimum safe line (MSL) when a friendly element, such as a breach force, is moving toward an area of indirect fires. As the element approaches the MSL, observers call for fires to be lifted or shifted, allowing the friendly force to move safely in the danger area.

(6) ***Clearance of Fire.*** The maneuver commander has the final authority to approve (clear) fires and their effects within his zone or sector. Although he may delegate authority to coordinate and clear fires to his FSO, the ultimate responsibility belongs to the SBCT infantry company commander. Normally, the FSO assists the commander by making recommendations on the clearance of fires.

(7) ***Fires Support Execution Matrix.*** As a tool in fires support planning and execution, the company commander may develop a graphic summary outlining the critical elements of the fires and effects plan and the company's role in it. The commander can incorporate this information into his own execution matrix or into a separate fires and effects execution matrix, similar to the battalion's fire support execution matrix as illustrated in Table 10-5, page 10-10. The company fire support execution matrix is similar and should include, as a minimum, the following information for each target:

- Target number and type, to include FPF designation.
- Allocated fires and effects asset and munition type.
- Observer and backup observer.
- Trigger.
- Target purpose.
- Target grid.
- Priority of fire.
- Priority targets.
- Fire support coordination measures (FSCMs).

EVENT SUPPORT DATA	EVENT I (LD to SBF 01)	EVENT II (Set conditions for breach from SBF 01)	EVENT III (B Company breach)	EVENT IV (C Company assault)
TARGET/ GRID	AE0001 (PK 10184938).	AE0002 (PK 09005031).	O/O shift AE0001 to AE0003 (PK 10204810) and lift AE0002.	O/O lift AE0003.
ASSET	155-mm HE.	Mortar smoke.	155-mm.	155-mm.
OBSERVER/ BACKUP	Recon platoon will initially call for and adjust fires; FSO adjusts upon arrival at SBF; 1st platoon leader is backup.	FSO (primary)/ 1st platoon leader (backup).	AE0003: FSO (primary)/ 2d platoon leader (backup).	FSO (primary)/ 3d platoon leader (backup).
TRIGGER	C Company crosses PL LYNX.	On-call at SBF.	B Company crosses PL LION.	C Company completes consolidation on OBJ BOB.
PURPOSE	Disrupt enemy on OBJ BOB to facilitate maneuver of A Company to SBF position.	Obscure enemy to prevent interference with B Company's breach.	Disrupt MRB reserve to protect the assault force (C Company).	Protect the assault force (C Company).

Table 10-5. Example battalion fire support execution matrix.

10-5. MANEUVER COMMANDER'S INTENT

The SBCT infantry company commander ensures the FSO clearly understands the intent for maneuver and fires and effects. He identifies the role of fires and effects in the scheme of maneuver (when, where, what, and why) by explaining in detail the concept of the operation, scheme of maneuver, and tasks for fires and effects to the FSO.

a. Providing this level of guidance is not easy. Artillery fires are not instantaneous, and planning must allow for this lag time. It takes several minutes to process targets of opportunity and deliver fires in the target area. While war-gaming the maneuver, the company commander refines the critical targets or EAs, priority of targets, priority of engagement, sequence of fires, and results desired. He then can see when and how to synchronize direct and indirect fires to destroy the enemy and protect the force.

b. The company commander normally designates the company's main effort to have priority of fires. This prioritizes requests when two or more units want fires at the same time. It should be noted that an element can still request fires even if it has not been allocated priority of fires. He also designates where to place obscuration or illumination, suppressive fires, and preparation fires.

10-6. PLANNING PROCESS

While the SBCT infantry company commander develops and refines the tactical plan, the FSO concurrently develops and refines the fire support portion of that plan. The FSO does not wait for the commander to complete the scheme of maneuver; he builds the fire plan using deliberate or quick fires and effects planning, depending on the time available. In either case, targets must be placed in the fire support planning channels as soon as possible so they can be processed at the battalion FSE or battery FDC (Figure 10-1). Regardless of which planning method is used, the company fire support plan must include:

- Target number and location.
- A description of the expected target.
- Primary and alternate persons responsible for shooting each target.
- The effect required (destroy, suppress, neutralize) and purpose.
- Radio frequency and call sign to use in requesting fires.
- When to engage the target.
- Priority of fires and shifting of priority.
- Size, location, code word, and emergency signal to begin FPF.

Other information may be included as necessary or appropriate.

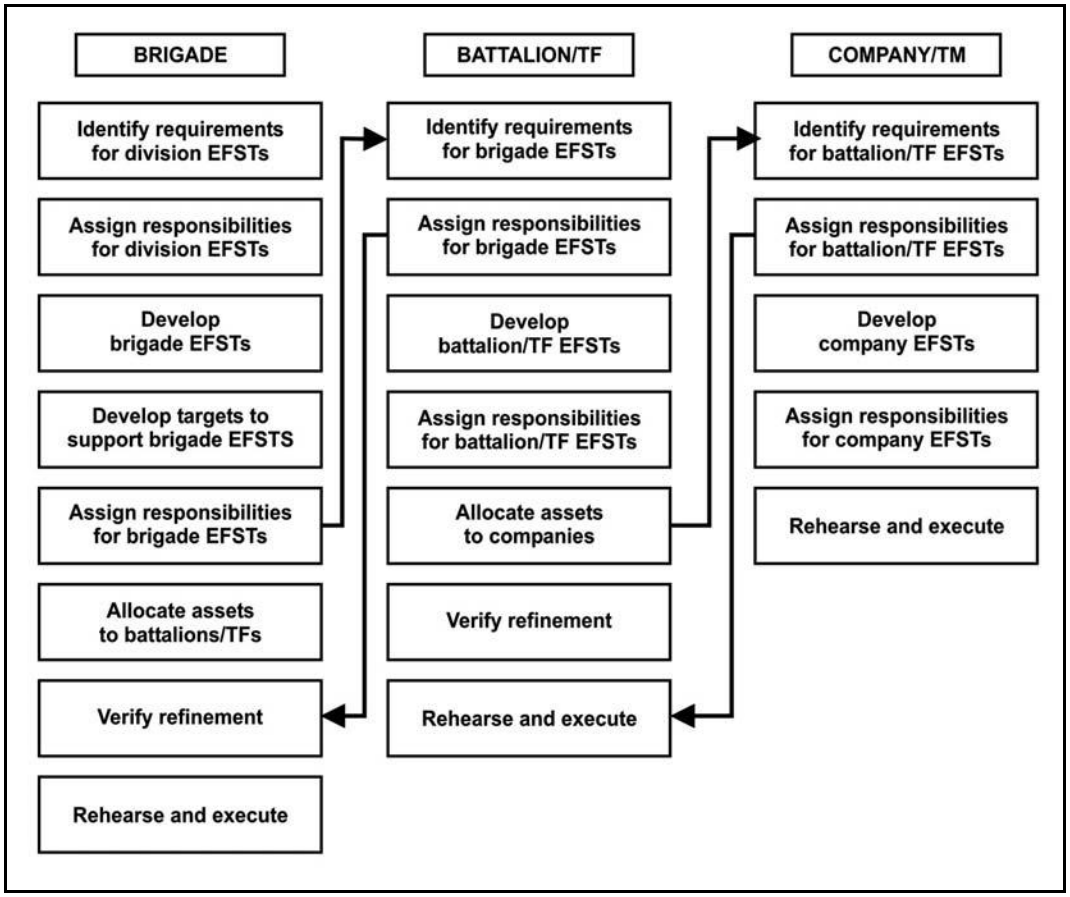


Figure 10-1. The fire planning process

a. The company FSO does most of the company fire support planning; however, he may receive targets and target information from platoon leaders and the battalion FSO. The company commander and FSO should not plan too many targets.

(1) The number of targets planned by the company and included in the formal fires and effects plan depends upon the company's priority for fire support and the number of targets allocated to them. The total number of targets in the fire support plan or the battalion mortar plan may be constrained. An excessive number of targets tends to dilute the focus of fire planning and can lead to increases in response time.

(2) Informal planning continues with target locations being recorded on terrain sketches or the FSO's map or being stored in the buffer group of the advanced field artillery tactical data system (AFATDS) for quick reference and transmission. Fire planning for the company mortars should complement these plans; the primary constraint normally is ammunition availability and the rapid resupply ability. Care must be taken to ensure that planning focuses on the critical fires and effects requirements identified by the company commander.

b. The company FSO completes the indirect fire plan and briefs the company commander. The company commander may alter the plan or approve it as is, but he makes the final decision. After the company commander approves the plan, the FSO makes sure the targets are passed to the battalion FSE where the fire plans are integrated into the battalion scheme of maneuver.

c. The FSO ensures platoon leaders are thoroughly familiar with the indirect fire plan. He also provides target overlays to the platoon leaders, forward observers, and the commander. He also may disseminate the company fire support plan as a target list and a fires and effects execution matrix. The FSO does this in sufficient time to allow subordinates to brief their platoons and sections. (A good plan given with the company order is better than a perfect plan handed out at the line of departure.)

(1) ***The Fires Paragraph.*** As a subparagraph to the concept of operations, the fires paragraph describes the concept of fires that, along with the scheme of maneuver, communicates how the force as a whole will achieve the commander’s intent. It must clearly describe the logical sequence of EFSTs and how they contribute to the concept of operations. The overall paragraph organization should mirror that of the scheme of maneuver paragraph. If the maneuver paragraph is phased or otherwise organized, the fires paragraph will take on the same organization.

(2) ***Task, Purpose, Method, and Effects.*** The internal format for the fires paragraph uses the four subcategories of TPME. Within each phase of an operation, each EFST will be described in the sequence of planned execution using TPME. The fires paragraph must be concise but specific enough to clearly state what fires are to accomplish in the operation. The information required in each subcategory is outlined below.

(a) *Task.* Task describes the targeting objective fires must achieve against a specific enemy formation's function or capability. These formations are HPTs or contain one or more HPT. Task is normally expressed in terms of objective, formation, and function.

- Objective. Clearly describes the targeting objectives that must be achieved. Use terms such as destroy, disrupt, delay, limit or any other terms that describe the effects required.
- Formation. A specific element or subelement of the enemy. This can specify a specific vehicle type or target category as long as the element or subelement is clear.
- Function. A capability of the formation that is needed for it (the enemy formation) to achieve its primary task and purpose.

(b) *Purpose.* Purpose describes the maneuver or operational reason for the task. This should identify as specifically as possible the friendly maneuver formation that will benefit from the targeting objective and describe in space and time what the objective will accomplish.

EXAMPLE

TASK AND PURPOSE

Objective	**Formation**	**Function**
Disrupt the ability of	the motorized infantry platoon at point of penetration	to place effective direct fire against the breach force...

…to allow an SBCT infantry rifle company to breach the obstacle without becoming decisively engaged by the motorized infantry platoon at the point of penetration

(c) *Method.* Method describes how the task and purpose will be achieved. It ties the "detect" function to the "deliver" function in time and space and describes how to accomplish the task. Method normally is described in terms of priority, allocation, and restriction.

- Priority. For detection assets, it assigns priorities for finding NAIs, targeted areas of interest (TAIs), EAs, and or HPTs. For deliver assets, it assigns the priority of the HPT that system primarily will be used against.
- Allocation. For both detection and deliver assets, it describes the allocation of assets to accomplish the EFST.
- Restriction. Describes constraints--either requirements to do something or prohibition on action. Considerations include ammunition restrictions and FSCMs.

The method subparagraph includes the following information:

- Priority of fires (POFs).
- Observers (primary/alternate).
- Triggers.
- Target allocation.
- Priority targets.

- CAS allocations.
- FPFs.
- Restrictions.
- Special munitions.
- Intelligence and electronic warfare assets.
- Any other instructions.

EXAMPLE

METHOD

FA POF to 1st platoon, mortar POF to 2d platoon. Primary observer for AB1000 (motorized infantry platoon at point of penetration) is 1st platoon from OP 1, NFA 1. Alternate observer is company FIST, NFA 3…no DPICM within 300 meters NP177368….airspace coordination area (ACA) Lion in effect when CAS at initial point….

(d) *Effects.* Effects attempt to quantify the successful accomplishment of the task. They provide a guide to determine when the task is completed. One measure is to determine if the purpose has been met. If multiple delivery assets are involved, it helps clarify what each must accomplish. Effects determination also provides the basis for the assess function of targeting and contributes to the decision of whether to re-attack the target.

EXAMPLE

EFFECTS

No hostile fire on the breach force from enemy motorized infantry platoon until at least the assault force has passed through.
25 percent of vehicles and 50 percent of enemy motorized infantry platoon destroyed.

NOTE: At battalion and below, a formal written OPORD may not be produced. A fire support plan at this level may be an operations overlay with written instructions, an FSEM, and a target list/overlay.

d. Battalion fire support plans may be distributed in matrix format. The fire support execution matrix is a concise, effective tool showing the many factors of a detailed plan. It may aid the company FSO and the commander in understanding how the indirect fire plan supports the scheme of maneuver. It explains what aspects of the fires and effects plan each element is responsible for, and at what time during the battle these aspects apply. (For more information on the battalion fire support matrix, see FM 3-21.21 [7-22].)

(1) The advantage of the matrix is that it reduces the plan to one page and simplifies it. The company fire support execution matrix (Figure 10-2) also directs execution

responsibilities and reduces the possibility that planned fires will not be executed. Dissemination of the fire plan is the responsibility of the company commander. The commander and his key subordinate leaders must understand the categories of targets and how to engage those targets to create the desired result.

(2) Figure 10-2, page 10-16, is an example of a completed fire support execution matrix for a company deliberate attack. In the AA, a field artillery FPF is allocated for 1st and 2d platoons; 3d platoon has been allocated a mortar FPF; 2d platoon has priority of mortar fires from the LD to Checkpoint 7. From Checkpoint 7 to Objective Green, 3d platoon has been allocated a mortar priority target and has designated it as CA3017; 2d platoon is backup for execution. 1st platoon has been allocated a mortar FPF; 2d and 3d platoons have been allocated field artillery FPFs. At company level, information in each box of the matrix includes the following:

(a) Priorities of indirect fire support to a platoon appear in the upper left corner of the appropriate box (FA).

(b) If a unit is allocated an FPF, the type of indirect fire means responsible for firing appears next to the indicator (FA FPF or MTR FPF).

(c) The target number of priority targets allocated to a platoon appear in the box preceded by the target, followed by the target number (MORT PRI TGT CA3014).

(d) If the company FSO is responsible for initiating specific fires, the target number, group, or series designation is listed in the box for the FSO (CA3012). Specific guidelines concerning fires not included on the target list are included in that box.

(e) Alternate element responsible for the execution of specific fires is listed in the lower right hand corner of the box (2d platoon). If fires have not been initiated when they were supposed to have been, that unit initiates them (unless ordered not to).

(f) Each fire support measure to be placed in effect, followed by a word designated for the measure, is shown in the box (CFL CHUCK). For airspace coordination areas, the time for the arrival of the planned CAS or attack helicopters is listed (ACA 1400Z).

(g) Other factors that apply to a certain platoon during a specific time may be included in the appropriate box. General guidance is issued in the written portion of the operation order.

	AA	LD	CP7	OBJ GREEN
FSO	INITIAL PREP / 1ST PLT	FIRE CA 3012 CFL CHUCK / 2D PLT	FIRE C1A GROUP / 3D PLT	ACS (CAS) 1400Z
1ST PLT	FA FPF	CFL CHUCK		MORTAR FPF
2D PLT	FA FPF	MORT PRI TGT CA 3014 CFL CHUCK		FA FPF
3D PLT	MORTAR FPF	CFL CHUCK	MORT PRI TGT CA 3017 / 2D PLT	FA FPF

Figure 10-2. Example SBCT infantry company fire support execution matrix.

10-7. TARGETS

A target can be personnel, vehicles, materiel, or terrain that is designated and numbered for reference or firing. Every target can be classified as either a target of opportunity (appears during combat, no attack has been planned) or a planned target (fire is prearranged). Individually planned targets may be further subdivided into either scheduled or on-call targets. A scheduled target is a planned target to be attacked at a specified time. An on-call target is a planned target on which fire is delivered when requested.

a. A priority target is one that could decisively affect the unit mission. The SBCT commander may allocate artillery priority targets to battalions. The battalion commander may in turn allocate priority targets to his subordinate infantry companies. Normally, the company commander designates company priority targets (with recommendations provided by the FSO).

b. When the battalion commander designates priority targets, he provides specific guidance to the FSO and his subordinate companies as to when certain targets become priority targets, when they cease to be priority targets, the desired effects on the targets, and any special type of ammunition to be used. Firing units lay the guns on priority targets when they are not engaged in a fire mission, which reduces reaction time. FPF is an example of a priority target in a defensive situation.

c. The company FSO assigns a target number to each planned target. Blocks of alphanumeric target numbers (two letters and four numbers) are provided for all fire-planning agencies. These serve as an index to all other information regarding a particular target, such as location, description, and size. The company FSO assigns target numbers to any TRPs the company designates. Mortar sections have blocks of target numbers so they can assign a target number when an observer directs "record as target" upon completion of a registration.

d. A standard target is an area about 200 meters in width. The symbol for a standard target is a cross. It may be canted if several targets are close to each other or if the symbol might be mistaken as a grid intersection. The intersection of the lines marks the center of the target. The target list describes the nature of the target and other pertinent information. (This applies to targets planned for conventional and improved conventional ammunition.)

(1) ***Offensive Application.*** Use offensive application targets to attack known, suspected, or likely enemy positions such as OPs, antitank sites, road intersections, or terrain that dominates attack axes.

(2) ***Defensive Applicatio.*** Use defensive application targets to destroy the enemy as he attacks. Plan targets at fording sites, bridges, narrow defiles restricting movement, road intersections, obstacles, and possible overmatch positions.

e. When the expected target will be moving, extra planning is required. Determine a trigger point that allows a designated observer sufficient time to initiate the call for fire, the firing unit time to prepare and fire, and the projectiles time to reach the target. The observer calls for fire as the unit or vehicles reach the trigger point and the enemy continues moving to the target. If timed properly, enemy and projectiles arrive at the target at the same time.

10-8. FINAL PROTECTIVE FIRES

FPFs are immediately available planned fires that block enemy movement, especially dismounted infantry approaching defensive lines or areas. These areas are integrated with defensive plans. The pattern of FPF plans may be varied to suit the tactical situation; they are drawn to scale on the target overlay. The size of the FPF is determined by the number and type of weapon used to fire on it (Figure 10-3, page 10-18). The company commander is responsible for the precise location of FPFs. The company FSO--

- Reports the desired location of the FPF to the supporting FDC.
- Adjusts indirect fire on the desired location, by weapon.
- Transmits the call to fire FPF to the supporting FDC.

The leader (normally the company commander or a platoon leader) in whose area the FPF is located has the authority to call for the FPF. The FPF has the highest priority of any target assigned to a fires and effects means. The FPF is only fired when required to repel the enemy's assault. Premature firing wastes ammunition and allows the enemy to avoid the impact area.

WEAPONS	SIZE (METERS)
60-mm Mortar (2 tubes)	60 x 30
81-mm Mortar (4 tubes)	100 x 40
120-mm Mortar (2 tubes)	120 x 60
120-mm Mortar (4 tubes)	240 x 60
155-mm Howitzer (4 guns)	200 x 50
155-mm Howitzer (6 guns)	300 x 50
155-mm Howitzer (8 guns)	400 x 50

Figure 10-3. FPF dimensions

10-9. SPECIAL MUNITIONS

Obscuration fires use smoke and white phosphorus ammunition to degrade the enemy by obscuring his view of the battlefield. (High explosive ammunition may also obscure his view with dust and fires, but the unit should not rely on it as the primary means.) Because smoke is subject to changes in wind direction and terrain contours, its use must be coordinated with other friendly units affected by the operation. Used properly, obscuration fires can--

- Slow enemy vehicles to blackout speeds.
- Obscure the vision of enemy direct fire weapon crews.
- Reduce accuracy of enemy-observed fires by obscuring OPs and CPs.
- Cause confusion and apprehension among enemy soldiers.
- Limit the effectiveness of the enemy's visual command and control signals.

a. Screening fires are closely related to obscuration fires; they also involve the use of smoke and WP. However, screening fires mask friendly maneuver elements to disguise the nature of their operations. For example, they are used to screen river crossings for an enveloping force. Screening fires may assist in consolidating on an objective by placing smoke in areas beyond the objective. They also may be used to deceive the enemy into believing that a unit is maneuvering when it is not. Screening fires require the same precautions as obscuration fires.

b. Special munitions may be used for illumination, which may be scheduled or on-call. Use friendly direct fire weapons and adjustment of indirect fires to illuminate areas of suspected enemy movement or to orient moving units.

10-10. SMOKE SUPPORT

Internal smoke capabilities consist of company mortars and smoke pots. Smoke pots are the commander’s primary means of producing small-area screening smoke. An external smoke platoon is required for long-term, large-area obscuration. If attached, the smoke platoon has the capability of providing both hasty smoke and large-area smoke support for tactical operations in the main battle area.

10-11. OBSERVER POSITIONS

To ensure that indirect fire can be called on a specific target, observers must be designated and in the proper position. As the company plans indirect fire targets to support the operation and passes these down to the platoon, specific observers are positioned to observe the target and the associated trigger line or TRP. Any soldier can perform this function as long as he understands the mission and has the communications capability and training.

a. Once the target has been passed to the platoon or included by the platoon in the fire support plan, the platoon leader must position the observer and make sure he understands the following in precise terms:

(1) The nature and description of the target he is expected to engage.

(2) The terminal effects required (destroy, delay, disrupt, limit, and so on) and purpose.

(3) The communications means, radio net, call signs, and FDC to be called.

(4) When or under what circumstances targets are to be engaged.

(5) The relative priority of targets.

(6) The method of engagement and method of control to be used in the call for fire.

(a) *Method of Engagement (Adjust Fire or Fire for Effect)*. Anticipate the need to adjust fires when deriving target location strictly through map-spot procedures. Using this technique, expect target location errors of up to 500 meters. Employ fire for effect when the target can be precisely located through previous adjustment, target area survey, or the use of laser range finders from known locations. When fires must be adjusted, consider the additional time required to complete the fire mission (two to four minutes for each adjustment) in the planning process.

(b) *Method of Control (Time on Target, At My Command, or When Ready)*. The method of control should reflect the degree of synchronization required. While time-on-target controls the precise timing of fires, it reduces flexibility in the firing units and can result in fewer missions being fired over a given period of time.

b. If the observer cannot be positioned to see the target and trigger line or TRP under the visibility conditions expected at the time the target is to be fired, the headquarters that planned the target must be notified and a new target must be planned at a location that will meet the commander's purpose for fire support.

c. There are three observer communications options available to the company. After considering the tactical situation, the degree of training, and the availability of fire support assets, the commander determines which option is best suited to the mission. Under all options, the company FSO monitors all calls for fire.

(1) ***Option 1 (Decentralized).*** The observer sends his call for fire directly to the fire support assets available to support his operation. This option gives him the most responsive fires; however, it allows the FIST HQ the least amount of control. Since the observer is allowed to determine which asset should engage each target, this option generally requires a highly trained observer and company FSO.

(2) ***Option 2 (Predesignated).*** The observer is assigned a particular fire support asset from which he may request fire support, and he operates on that unit's net. If the observer thinks his target should be engaged with a different fire support asset, he must request permission from the FIST HQ to change assets. Permission is granted on a mission-by-mission basis. Under this option, fire support is highly responsive if the asset is suitable to the type of target.

(3) ***Option 3 (Centralized).*** The observer must contact the FIST HQ for each call for fire. The FIST HQ refers the observer or relays his request to an appropriate fire support asset. This option is least responsive for the observer, but it offers the highest degree of control to the FIST HQ. This option generally is used when maneuver personnel are observers for their platoon.

(4) ***Tailoring.*** Since the level of training and the tactical situation vary for each observer, the company FSO may assign each observer under his control an appropriate option. For example, the 1st Platoon FO may be decentralized, the 2nd Platoon FO may be predesignated, and the 3rd Platoon FO may be centralized.

10-12. REHEARSALS AND EXECUTION

Once the company has developed and coordinated the fire support plan, it should rehearse the plan. As the company rehearses the maneuver, it rehearses the fire plan. The target list is executed as the maneuver is conducted; fires are requested (though not actually executed by the firing units) just as they would be during the operations. Under ideal

circumstances, an FPF can be adjusted during the rehearsal. Rehearsals on the terrain reveal any problems in visibility, communications, and coordination of the fires and effects plan. Conduct rehearsals under degraded conditions (at night and in MOPP4) to make sure the company can execute the plan in all circumstances.

a. If time or conditions do not permit full-scale rehearsals, key leaders can meet, preferably at a good vantage point, and brief back the plan. They can use a sand table depiction of the terrain. Each player explains what he does, where he does it, and how he plans to overcome key-leader casualties. The fires and effects plan execution is integral to this process and is rehearsed in exactly the same way.

b. The company executes the fire plan as it conducts the operation. It fires targets as required and makes adjustments based on enemy reactions. Priority targets are cancelled as friendly units pass them or they are no longer relevant to the maneuver.

10-13. COMMUNICATIONS

The FSO can monitor three of four possible radio voice nets and three digital nets (Figure 10-4). The company's mission and priority determine the specific nets.

a. **Company Command Net FM (Voice) and FBCB2 (Digital).** Platoon leaders, the XO, and attachments use this net to send reports, receive instructions, and request fires. Any Strikers attached to the company monitor this net. This net also allows the FIST to monitor company operations and links it to the company commander, platoon leaders, and observers for planning and coordination. The company headquarters is the net control station (NCS).

b. **Battalion Mortar Fire Direction Net FM (Voice).** Observers may use this net to request fires of the battalion mortar platoon. Other stations on the net include the FIST headquarters and the battalion FSE. The battalion mortar platoon is the NCS.

c. **Battalion Mortar Fire Direction Net (Digital).** As necessary, the FIST sends fire missions to the supporting mortar platoon or section using this net.

d. **Company Mortar Net (Voice).** Observers or the company FSO use this net to request fire from the company mortars.

e. **Direct Support Battalion Fire Direction Net FM (Voice) and Digital.** This net is used for FA fire direction. The FIST uses this net to relay calls for fire through the battalion FSE to supporting artillery assets. The direct support battalion FDC is the NCS. When a Striker is present, it uses this net to request FA fires. The battery FDC and battalion FSE also are on this net.

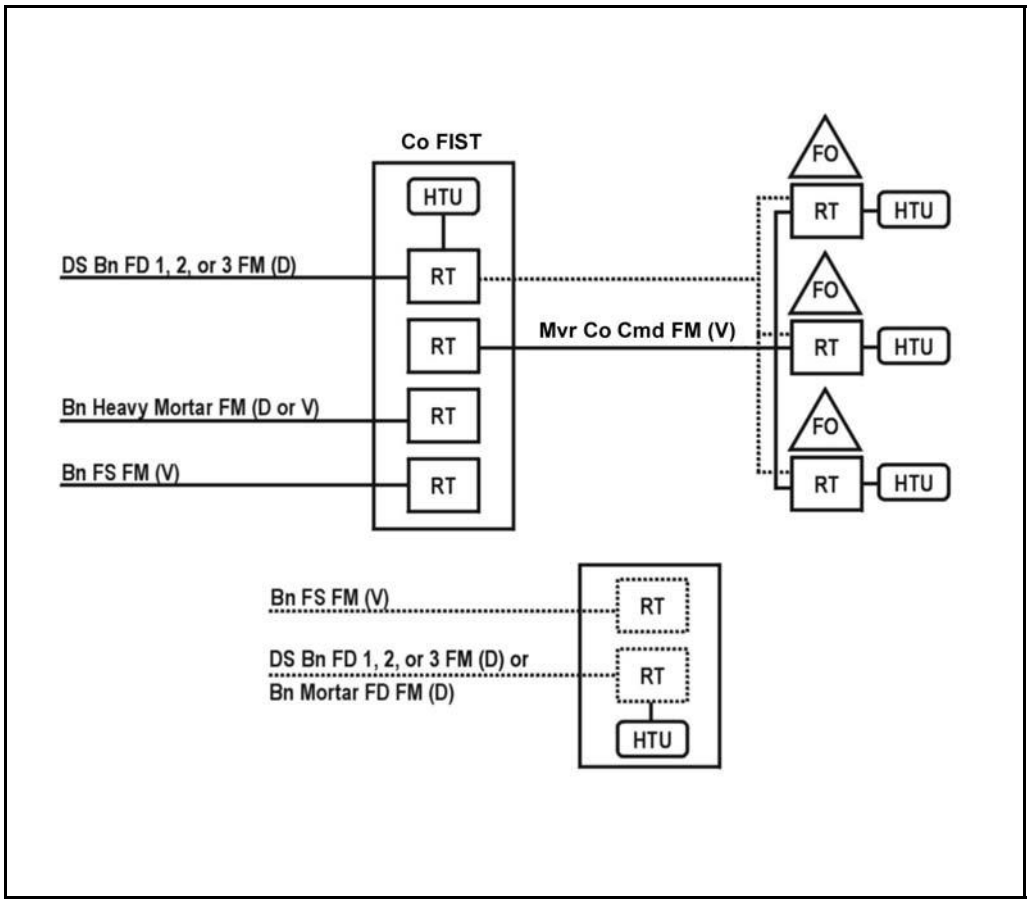


Figure 10-4. Company FIST communications.

10-14. QUICK FIRE CHANNEL

A quick fire channel is established to link an observer (or other target executor) directly with a weapon system (Figure 10-5, page 10-22). Quick fire channels may be either voice or digital nets. Quick fire channels within a maneuver brigade normally are established on FA or mortar nets. These channels are designed to expedite calls for fire against HPTs or to trigger preplanned fires. Quick fire channels also may be used to execute fires for critical operations or phases of the battle and to link an observer with a battery or platoon FDC for counter reconnaissance fires. Copperhead missions can best be executed by using quick fire channels. The fire support coordinator and or FSOs establish quick fire channels and procedures based on the commander's intent and the concept of operations.

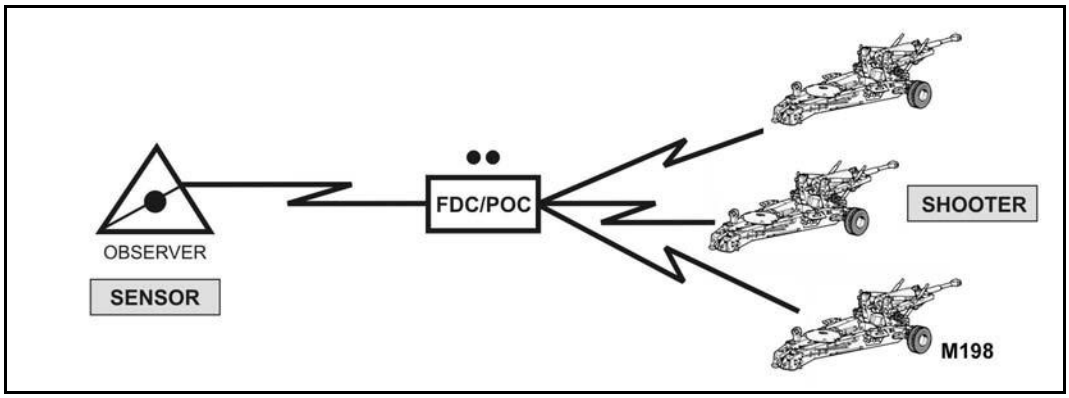


Figure 10-5. Quick fire channel illustrating sensor-to-shooter link.

10-15. INDIRECT FIRES IN CLOSE SUPPORT

Effective indirect fires and effects often require artillery and mortar fires near friendly infantry soldiers. A safe integration of fires and maneuver this close demands careful planning, coordination, and knowledge of the supporting weapons. These close supporting fires are most commonly FPFs in a defensive operation or are suppression or obscuration fires to support an assault on an enemy position. When planning these fires, the company commander considers--

a. **The Effect Required.** In the defense, this may be to destroy enemy soldiers and to degrade the effectiveness of enemy vehicles by causing them to fight buttoned-up. In the attack, the suppression/obscuration of enemy positions to allow the breach and seizure of a foothold on the objective is probably the desired effect.

b. **The Accuracy of the Delivery System.** There are many variables that impact on the accuracy of the weapon. The FSO has the technical knowledge to assist the company commander. Artillery and mortars are area weapons systems, which means that every round fired from the same tube impacts in an area around the target or aiming point. This dispersion is greater in length than in width. The weather conditions (wind, temperature, and humidity), the condition of the weapon, and the proficiency of the crew also affect the accuracy.

c. **The Protection of His Unit as the Rounds are Impacting.** If the unit is in well-prepared defensive positions with overhead cover, an FPF can be adjusted very close, just beyond bursting range. If required, the company commander can even call for artillery fires right on his company position using proximity or time fuzes for airbursts. It is much more dangerous to call for close indirect fires during an attack. The commander considers the terrain, the breach site, and the enemy positions to determine how close to adjust his supporting indirect fires.

d. **The Integration of Indirect Suppressive Fires.** When integrating indirect suppressive fires to support the breach and assault, the following points are key:

(1) The danger increases with the size of the weapons. Use artillery to isolate the objective; use mortars on enemy positions away from the breach site; and use the 60-mm mortars, M203s, and direct fire weapons for close suppression.

(2) Assaulting perpendicular to the gun target (GT) line increases the probability of safety. If the rounds are coming over the head of the assault element, the margin of safety is reduced.

(3) Company mortars firing direct lay or direct alignment are the most responsive system. They are able to observe the rounds' impact and adjust accordingly. The safest method is to fire the 60-mm mortar with a bipod.

(4) Ideally, the firing units register prior to firing close-support missions. If not, the first rounds fired may be off target by a considerable distance. Once the firing units are adjusted on a target, then any shifts from that target are much more reliable.

e. **Timings and Control.** The final requirement for integrating these fires is to establish timings and control to ensure these targets are initiated, adjusted, and shifted properly. If possible, the company FSO should locate where he can observe these targets (possibly with the support element). A detailed execution matrix that assigns responsibility for each target to the leader or observer who is in the best position to control them should be developed. These soldiers must know when each target, series, or group is fired, what effect is desired on which enemy positions, and when to lift or shift the fires. Consider the use of pyrotechnic or other signals to ensure communication.

10-16. FIRE SUPPORT TEAM

The following paragraphs examine capabilities, procedures, and other considerations that affect the company FIST and its employment in the fires and effects mission.

a. **Personnel.** FIST personnel at the company level include the company FSO, the fire support sergeant, a fire support specialist, and a radiotelephone operator.

b. **Equipment.** The FIST operates out of the FIST FSV. This FSV is equipped with digital and voice communications links to all available indirect fires and effects assets. The large targeting head atop the FSV houses the G/VLLD, which can accurately determine the range, azimuth, and vertical angle to targets and can designate targets for laser-guided munitions.

c. **FIST Employment.** The company commander has two options for employment of his FIST.

(1) ***Option 1***. The FSV is used as a combat observation lasing team (similar to a Striker team) somewhere within the battalion or SBCT sector or zone and is controlled by another headquarters. The company FSO, accompanied by the fire support specialist, rides with the company commander or in another company maneuver vehicle. He brings two radios and the handheld terminal unit (HTU). This option severely degrades the ability of the FIST to support the company.

(2) ***Option 2.*** The company FSO works out of the FSV, which he positions where he can most effectively observe and control execution of the fire support plan. The FSO establishes OPs that take maximum advantage of the capability of the Striker to create lethal, accurate fires. He communicates with the commander on the company command net. This option allows the FSO to maintain effective control of any designated observers and to conduct required fires and effects coordination. He must keep the company informed at all times of his location and the routes he will take when moving from OP to OP.

10-17. MORTARS

The mortar section is made up of two squads, each consisting of two 60-mm mortars or two 120-mm mortars and crew (Figures 10-6 and 10-7). The mortar section leader must work closely with the company commander and his FSO to maximize the section's fires.

The platoon has two vehicles to move its equipment, ammunition, and personnel; it also has an organic FDC. Table 10-6, page 10-26, shows the different ranges and types of ammunition for the company mortar systems. Teamwork is the key to an efficient mortar section. Duties must be constantly drilled and personnel cross-trained.

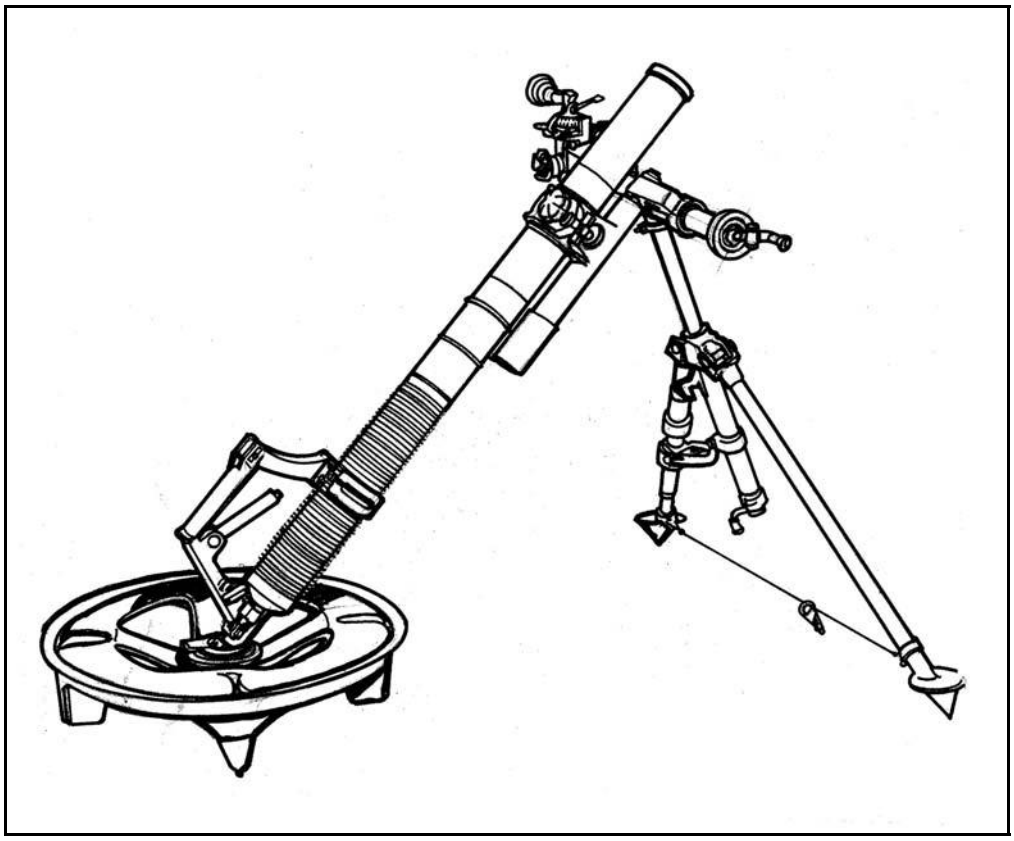


Figure 10-6. 60-mm mortar dismounted.

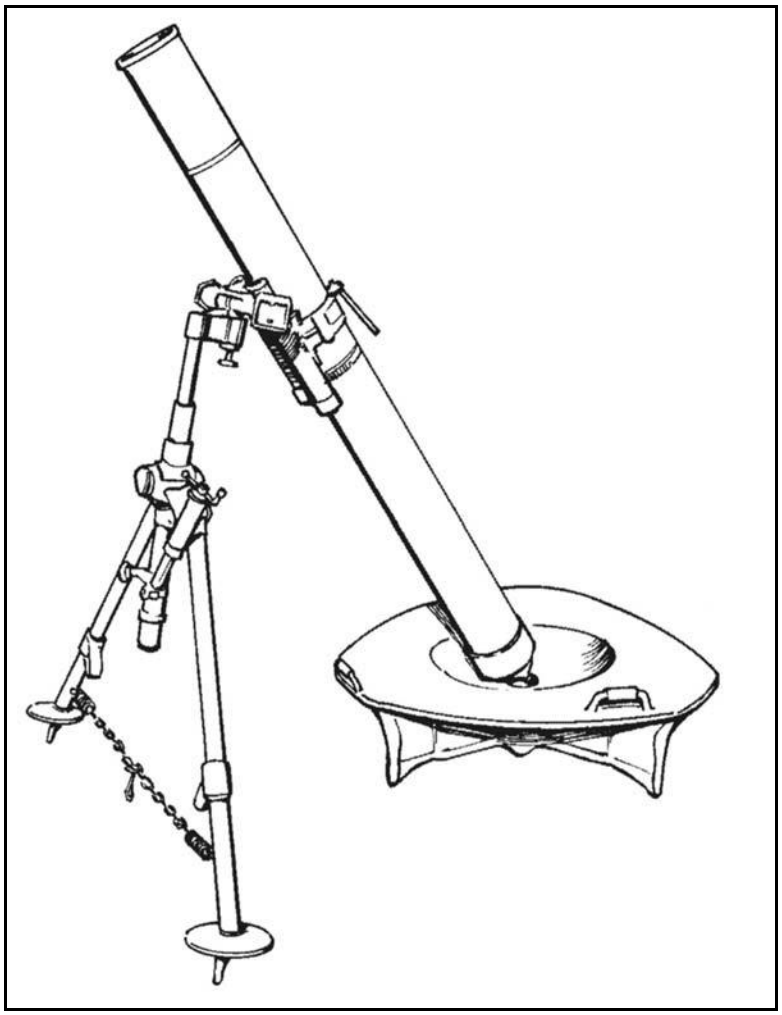


Figure 10-7. 120-mm mortar (dismounted).

SIZE/ NOMEN	MODEL	TYPE	MIN RANGE	MAX RANGE	DIAMETER OF ILLUM	ROF
60-mm **M224**	M720/M998	HE	70	3500(1)		30 RDS PER MINUTE FOR 4 MINUTES(2) THEN 20 RDS PER MINUTE SUSTAINED
	M722	WP	70	3500		
	M721	ILLUM	200	3500	500	
	M302A1	WP	35	1830		
	M83A3	ILLUM	725	950	300	
	M494A	HE	45	1830		
120-mm **M121**	M57	HE	200	7200		15 RDS PER MINUTE FOR 1 MINUTE, THEN 4 RDS PER MINUTE SUSTAINED
	M68	WP	200	7200		
	M91	ILLUM	200	7100	1500	
	M933	HE (PD)	200	7200		
	M934	HE (MOF)	200	7200		
	M929	WP	200	7200		
	M930	ILLUM	200	7200	1500	

(1) BIPOD MOUNTED, CHARGE 4 (MAXIMUM RANGE HANDHELD IS 1300 METERS).

(2) CHARGE 2 AND OVER. 30 RDS PER MINUTE CAN BE SUSTAINED WITH CHARGE 0 OR 1.

Table 10-6. Mortar ammunition characteristics.

a. **Mortar Section Leader.** The mortar section leader is responsible (overall) to the company commander for the mortar section. His duties include--

- Advising the commander on employing and positioning the mortar section.
- Assisting the FIST chief in planning fire support for the company.
- Keeping the commander informed of the location of the mortar section and the status of the mortars and ammunition.
- Maintaining a situation map showing all supported units' locations, mortar positions, maximum range lines, and targets.
- Planning, initiating, and supervising the timely displacement of the section.
- Supervising security, resupply, and communications for the section.
- Seeing that preparations are made for special firing techniques, such as direct lay and direct alignment.
- Performing the duties of chief computer.
- Cross-checking target plots.
- Maintaining ammunition records and submitting resupply requests.
- Recommending to the commander when the mortars should displace and controlling their displacement.
- Relaying enemy information from designated observers to the company and others, as directed.

b. **Mortar Squad Leader.** The mortar squad leader and gunners' responsibilities include--

- Moving and positioning the mortar as directed.
- Ensuring that the mortar is properly laid.
- Checking camouflage and overhead and mask clearance.

- Maintaining a map showing positions, sectors, and targets (needed for independent operations or when displacing by squads).
- Computing firing data for independent operations.
- Ensuring that ammunition is properly stored.
- Checking rounds for indexing and charges.
- Maintaining communications with the FDC, when applicable.

10-18. MORTAR POSITIONS

Based on the mission, terrain, and SBCT infantry rifle company commander's guidance, the mortar section leader reconnoiters and selects mortar firing positions. In the battalion mortar platoon, a representative from the base gun and one man from the FDC may help reconnoiter and prepare the new position.

a. A mortar section position should--

- Allow firing on targets throughout the company's sector or zone, or the supported platoon's sector or zone. In the offense, one half to two thirds of the range of the mortars should be forward of the lead platoon. This reduces the number of moves needed.
- Be in defilade to protect the mortars from enemy observation and direct fire. Places such as the reverse slope of a hill, a deep ditch, the rear of a building, and the rear of a stonewall are well suited for mortar positions. The reverse slope of a hill may protect mortars from some indirect fire.
- Have concealment from air and ground observation. Vegetation is best for breaking up silhouettes. Vehicles should be positioned in defilade where natural camouflage conceals them. When the location of the firing position provides little concealment, consider the use of a hide position, which provides good cover and concealment and allows the mortar crews to quickly occupy their firing positions when required.
- Have overhead and mask clearance. Overhead clearance is checked by setting the sight at maximum elevation and looking along the mortar tube. Mask clearance is checked the same way, but at minimum elevation.
- Have solid ground that supports vehicle movement and precludes excessive settling of base plates. On soft ground, put sandbags under base plates to reduce settling.
- Have 25 to 30 meters between 60-mm mortars and 35 to 40 meters between 120-mm mortars. This reduces the chances of having more than one mortar hit by one enemy round. It also provides proper sheaf dispersion without plotting for each gun.
- Have routes in and out. These routes should ease resupply and displacement.
- Be secure. The section may have to provide its own local security. Being near other friendly units improves security.
- Avoid overhead fire of friendly soldiers when possible.

b. The FDC may be in voice-distance of the squads; however, telephone wire should be laid from the FDC to each squad for security purposes and because battle noise may be so intense that the squads cannot hear the commands.

c. The mortar section has a very limited capability to secure itself. Normally, it collocates with other elements or has a security element attached.

d. Mortar crews prepare mortar positions to protect themselves and to serve as firing positions for the mortars. The crews construct the positions with sandbags, ammunition boxes, earth, or any other available materials. (FM 7-90 describes these dug-in positions.)

10-19. MORTAR EMPLOYMENT

In a movement to contact, the mortar section usually supports the SBCT infantry company with priority of fire to the lead platoon. The section normally displaces one squad at a time so that at least one squad is always in position and ready to fire. The section's displacement is based on the company's movement. The leader keeps the company commander informed of the location and status of his weapons and ammunition. The observers report their locations to the FDC.

a. In an attack, sections prepare initial firing positions and may stockpile ammunition. They occupy positions at the last moment before the attack. The section must remain ready throughout the attack to respond to calls for fire and to displace, if necessary.

b. In the defense, mortars are farther to the rear than in the offense. The company commander plans his mortar section's final protective fire on a dangerous, dismounted enemy avenue of approach. Extra ammunition is stockpiled (if feasible). The mortars have some security when behind forward troops, but they still prepare to defend their positions.

c. To avoid being suppressed, a number of mortar positions are designated, prepared (if feasible), and occupied as required during the battle.

d. In a withdrawal not under enemy pressure, one or more mortars may be left in position to support the DLIC.

e. No matter where the platoon or section is located, it does everything it can for its own security. It may be able to post one or two security elements (equipped with Claymore mines and AT4s) on the most dangerous approaches. It also uses early warning devices. If attacked, the security elements give warning, kill as many of the enemy as they can, and then rejoin their squads. The rest of the unit defends them from the dug-in mortar positions. The company reserve may be employed for a counterattack or to improve the security and defense of the mortar section.

f. The mortar section leader coordinates the section defense plan with the company reserve. Targets are planned around the section's position so other mortars or artillery can provide support.

10-20. MORTAR DISPLACEMENT

Mortars displace to provide continuous support and to evade suppression, whether the company is attacking or defending. This paragraph applies to both 60-mm and 120-mm mortars when man-packed by the platoon or section. (When displacing the 120-mm platoon with vehicles, refer to Chapter 3 of this manual and FM 7-90.)

a. The displacement plan and the position of the mortar section in the company formation should not disrupt the maneuver elements, should be responsive to the commander, and should provide the mortar section with local security. It should also allow the mortars to go into action quickly using the desired method of engagement and should provide ammunition resupply for the mortars. The displacement plan flows

logically from other decisions made by the company commander, the company FSO, and the mortar section leader.

b. If the company commander determines that operations (offensive or defensive) will move slowly enough to stay within mortar range and that continuous indirect fires must be available, he may order the mortars to displace to a suitable support position before the company moves out. In this event, he may not move them again until the company reaches its next position. The choices available for displacement are displacement by section and displacement by squad:

(1) ***Displacement by Section.*** The whole section displaces at the same time. This allows the section to mass fires and the section sergeant to keep good control of his section. Moving as a platoon or section maximizes the limited FDC capability. It also is the fastest method of displacement. While the section is moving, its fire support is not immediately available unless it is positioned to fire using the direct lay or direct alignment methods or by conducting a hip shoot. Using any of these methods, the mortar section can be available with only minimum delay.

(2) ***Displacement by Squad.*** This method allows continuous coverage of at least part of the company's sector. Because there is only one radio in the mortar section and six men for the 60-mm, it is difficult to provide continuous indirect fire coverage even when displacing by squad. It is possible, however, for the company to attach one squad to each of two bounding platoons so that while using the direct lay or direct alignment methods, one squad is always in overwatch of the company's movement. This may allow increased mortar coverage of the company sector during decentralized operations. It reduces the difficulty of transporting the mortar ammunition and also may be the most effective means of infiltrating the mortars. Each section carries the ammunition for the attached gun squad.

c. The company commander also decides whether to move the mortars as a separate element in the company formation or to attach each gun squad to a subordinate element.

(1) ***Attached.*** The mortars are attached to a subordinate element when the situation requires that task organization (on a patrol or with the company support element, for example) or when the mortars need additional control, security, and load-carrying capacity (during an infiltration, for example).

(2) ***Separate.*** The mortars move as a separate element in the company formation when the commander wishes to control them directly and keep them together for massed use. When the mortars move as an element, they can displace by section or by squad.

10-21. MORTAR ENGAGEMENTS

There are various engagement methods: direct lay and direct alignment (which do not require a fire direction center), the conventional indirect fire, and the hip shoot. The primary methods of engagement for the 60-mm mortar are direct lay and direct alignment.

a. **Direct Lay.** This method is used when the gunner can see the target. The mortar may be handheld or bipod-mounted. An initial fire command is required to designate the target and (if desired) specify the shell-fuze combination and number of rounds. The gunner then adjusts fire and fires for effect without additional instructions (Table 10-7, page 10-30).

ADVANTAGES OF DIRECT LAY	DISADVANTAGES OF DIRECT LAY
• Can engage target immediately in handheld mode (the mortar weighs only 18 pounds and is therefore highly portable). • Can be used by relatively untrained gunners, such as cross-trained infantrymen. • Does not require an FDC.	• Requires the mortar crew to be relatively close to the enemy and therefore susceptible to direct and indirect fires. • Is less effective at night (the gunner cannot engage when he cannot see).

Table 10-7. Advantages and disadvantages of direct lay.

b. **Direct Alignment.** This method allows the mortar crew to fire from full defilade positions without an FDC. It requires that an observer be within 100 meters of the gun-target line and, if possible, within 100 meters of the guns. Direct alignment can be used only when handheld or bipod-mounted, although bipod-mounted is much more accurate (Table 10-8).

ADVANTAGES OF DIRECT ALIGNMENT	DISADVANTAGES OF DIRECT ALIGNMENT
• Can engage target more quickly than the methods requiring an FDC. • Allows crew more protection than direct lay. • Does not require an FDC.	• Is slightly slower than direct lay. • Requires the mortar crew to be relatively close to the enemy and therefore vulnerable to indirect fires or assault. • Requires a well-trained observer to be within 100 meters of the gun-target line (preferably within 100 meters of the guns). • Requires observers to be in direct communication with the gun crew by voice, arm-and-hand signal, landline, or radio. • Requires gun to be re-laid to engage each different target.

Table 10-8. Advantages and disadvantages of direct alignment.

c. **Conventional Indirect Fire.** This method is used when the mortars have been laid for direction and an FDC established with positions plotted on the M16 plotting board or the mortar ballistic computer (MBC). In this situation (for the 60-mm mortar), the section leader operates the MBC or the M16 plotting board and the radio as the FDC (Table 10-9).

ADVANTAGES OF CONVENTIONAL INDIRECT FIRE	DISADVANTAGES OF CONVENTIONAL INDIRECT FIRE
• Can fire accurately at any target within range as long as an observer who can communicate with the FDC observes the target. • Can accurately engage plotted targets during limited visibility. • Can locate well away from enemy direct fires.	• Requires an FDC (there is no designated FDC in the light infantry mortar section). • Is not as responsive as direct lay.

Table 10-9. Advantages and disadvantages of conventional indirect fire.

d. **Hip Shoot.** When a call for fire is received during movement and the target cannot be engaged by either the direct lay or direct alignment method, a hip shoot is initiated. A hip shoot is a hasty occupation of a firing position; it requires both an FDC and an observer. The section leader normally acts as the FDC (60-mm only). The observer's corrections may be sent over the radio or by a wire net. The platoon or section leader must quickly determine an azimuth of fire by map inspection. He then gives this direction to the mortar squads. The second squad leader uses the M2 compass (for the 60-mm section) to lay the base mortar. The section leader uses the MBC, the graphical firing scale, or the firing tables to determine the appropriate elevation and charge. He uses either the MBC or the M19 plotting board to refine the firing data based on the observer's corrections. The section leader may use the aiming-point deflection method, depending upon the terrain. The second mortar is laid either by sight-to-sight or M2 compass (Table 10-10).

ADVANTAGES OF HIP SHOOT	DISADVANTAGES OF HIP SHOOT
• Allows fire support when other methods of engagement are not usable. • Is able to move at the same time as the unit and still provide adequate fires.	• Requires an FDC (there is no designated FDC in the light infantry mortar section). • Is the slowest method of fire and the least accurate.

Table 10-10. Advantages and disadvantages of hip shoot.

Section III. ENGINEERS

The two core qualities of the SBCT infantry company are high mobility and the ability to achieve decisive action through dismounted infantry assault. At the tactical level, overmatching mobility is critical to the success of the force. Given the significance of tactical mobility to the SBCT's successful operations, the SBCT engineers are essential.

10-22. ORGANIZATION AND CAPABILITIES

SBCT engineer structure provides the SBCT commander with the embedded engineer integration required to train, rehearse, plan, and execute synchronized mobility operations. This structure includes--

- A four-man staff engineer planning section within the maneuver support cell.
- An organic medium engineer company outfitted with a full complement of engineer equipment adapted to or mounted on the SBCT's common vehicular platform.

10-23. ENGINEER COMPANY, BRIGADE COMBAT TEAM

The SBCT's organic engineer company provides embedded, responsive mounted and dismounted maneuver support. The engineer company supports the maneuver force--the SBCT infantry battalions and companies. It readily integrates into maneuver operations and organizations at all levels based on the analysis of tasks required. It is an agile organization that assures freedom to maneuver on the battlefield within the combined-arms-team framework. The engineer company has three combat mobility platoons, one mobility support platoon, and a company headquarters section (Figure 10-8). The engineer company is the lowest engineer echelon organic to the SBCT that can plan and execute continuous 24-hour operations in support of SBCT operations. The engineer company normally task-organizes its platoons to infantry battalions and companies in a specific command-support relationship to provide a mission-specific, tailored package. It performs mounted and dismounted engineer tasks equally well.

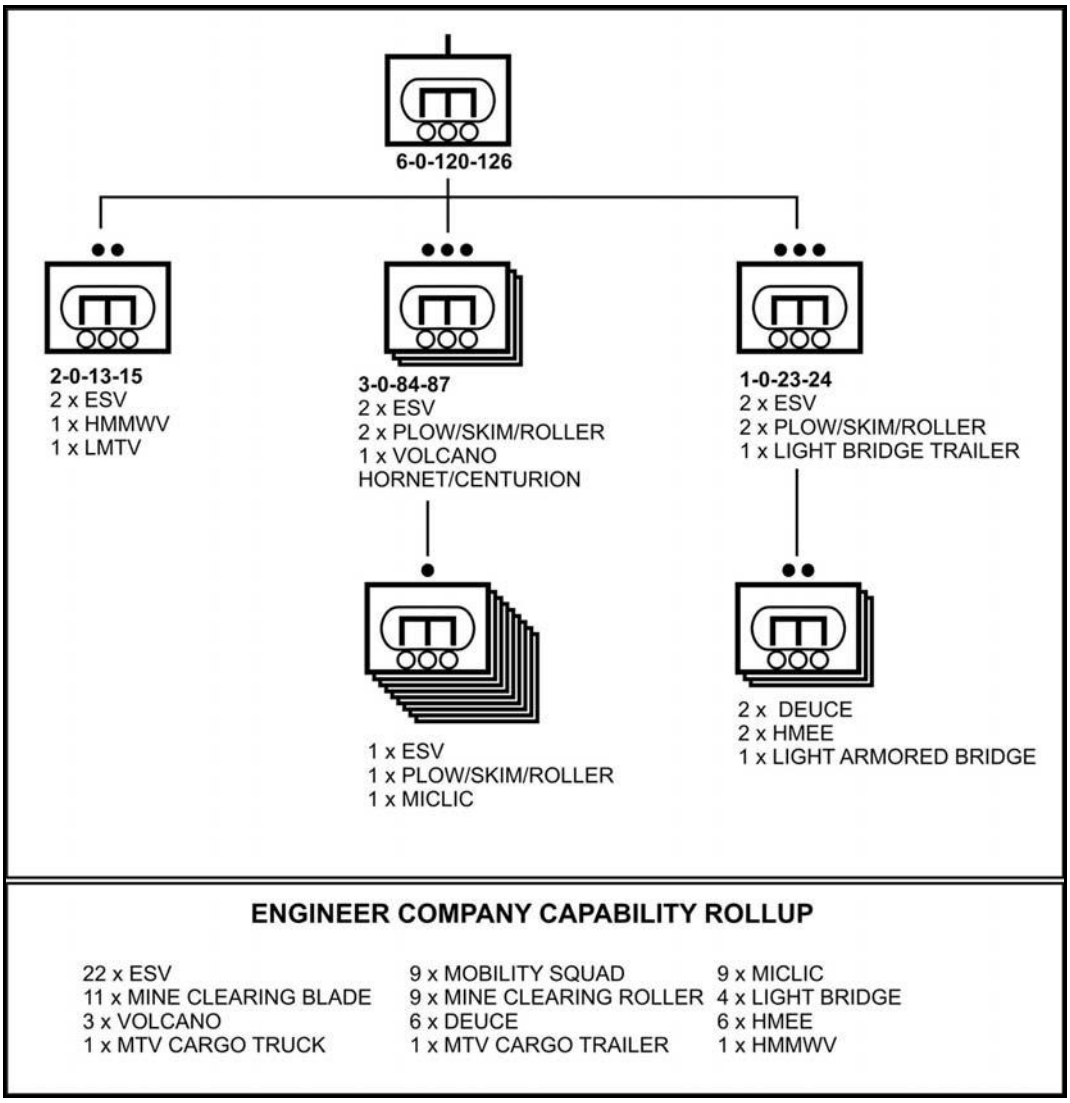


Figure 10-8. SBCT engineer company organization and equipment.

a. **Combat Mobility Platoon.** The combat mobility platoon is normally the lowest-level engineer unit that can effectively accomplish independent mounted engineer missions and tasks. It is the basic building block of engineer force allocation and task organization. A combat mobility platoon normally is task-organized to support an infantry battalion, but it may support an infantry company based on METT-TC analysis. The combat mobility platoon may receive augmentation in the form of special equipment from the mobility support platoon. Engineer platoon-specific common-platform equipment includes engineer support vehicles (ESVs) with mountable rollers or blades, light assault bridges, light earthmovers (deployable universal combat earthmovers [DEUCEs]), excavators (HMEEs), MICLICs, and multiple-delivery mine systems (Volcanoes) (Figure 10-9, page 10-34). The combat mobility platoon's eight-man engineer squads carry a variety of explosives and demolitions. The squad is normally the minimum force required to provide effective dismounted support to infantry companies. The squad is the engineer organization most likely to support an infantry company, particularly during offensive operations.

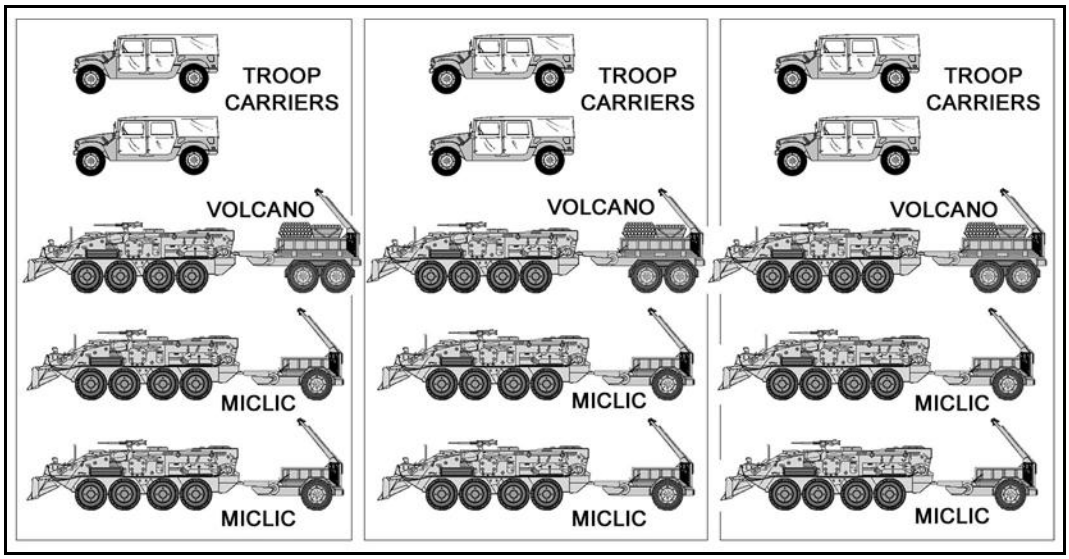


Figure 10-9. Combat mobility platoon.

b. **Mobility Support Platoon.** The mobility support platoon consists of a platoon headquarters section and three equipment-based mobility sections (Figure 10-10). Unlike the combat mobility platoon, it is not organized to operate independently during offensive operations. The mobility support platoon provides the commander with specialized equipment capabilities to weight the main effort and to perform specialized mobility tasks. Each section is structured to provide equipment augmentation, focused on reducing enemy obstacles and fortifications, to each of the three combat mobility platoons. Each section has gap-crossing, obstacle-reduction, special-tool, and heavy-blade capabilities. The mobility support platoon provides a limited capability for countermobility, survivability, and sustainment operations.

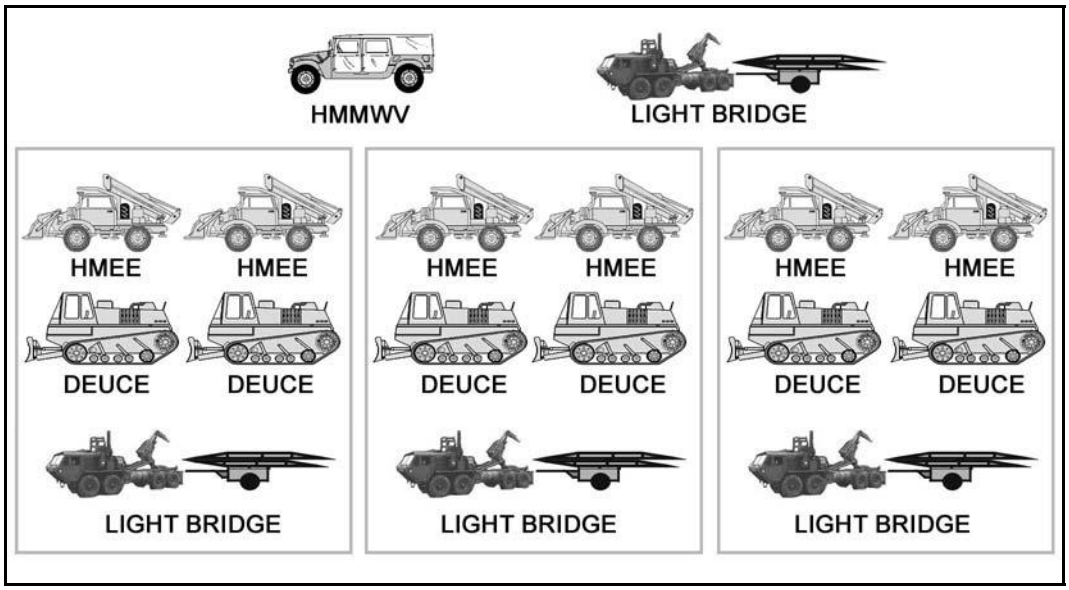


Figure 10-10. Mobility Support Platoon.

10-24. MOBILITY

At the tactical level, overmatching mobility is critical to the success of the force. Within this context, the emphasis of engineer integration across the force is on mobility operations. Due to the full-spectrum capability of the infantry company and the increasingly nonlinear, asymmetric nature of the threat, the potential exists for the company to encounter a wide variety of existing and reinforcing obstacles. To counter this potential threat, the company commander plans, organizes, and prepares to perform mounted and dismounted mobility tasks using the full range of organic and augmentation mobility assets.

a. **Breaching Operations.** Engineers reduce obstacles as part of company breaching operations (FM 3-34.2) and must be prepared to perform mounted and dismounted reduction tasks using manual, mechanical, and explosive reduction means (Table 10-11, page 10-36). Through reverse breach planning, the supporting engineer identifies critical mobility tasks, allocates reduction assets, and recommends a breaching task organization to the company commander. Keys to allocating reduction assets include identifying all reduction tasks within the zone or axis, matching specific reduction assets to each task, and planning redundancy in reduction assets for each task. The breach force must have the capability to secure the breach site locally; therefore, an engineer-based breach force must be task-organized with adequate maneuver combat power to suppress enemy forces in the vicinity of the breach site. The assault force must have the capability to exploit the breach and continue the attack. Keys to synchronizing a breach through reverse planning include:

- Actions on the objective drive the size of the assault force.
- The size of the assault force determines the number and types of breach lanes required.

- The number and types of breach lanes determine composition of the breach force.
- Suppression and obscuration required drives the size and composition of the support force.

BREACHING TENETS	BREACHING FUNDAMENTALS	BREACHING ORGANIZATION	TYPES OF BREACHING OPERATIONS
Intelligence Breaching Fundamentals Breaching Organization Mass Synchronization	Suppress Obscure Secure Reduce Assault	Assault Force Breach Force Support Force	Assault Covert In-Stride Deliberate

Table 10-11. Key breaching doctrine.

During the breach planning process, it is imperative that the SBCT infantry company commander establishes clear commitment criteria for the breach force. The commitment criteria should be as specific and measurable as possible so that they are clear, executable, and reportable. Sub-unit instructions or SOPs should likewise be clear and concise and should cover all potential actions and reactions. Leaders must position to quickly assess the success of the force in setting the prescribed conditions. To ensure success, all units must perform detailed combined-arms breach rehearsals, whether mounted or dismounted.

b. **Route Clearance Operations.** The nature of SBCT operations makes route clearance a likely task at all levels. Route clearance is a combined-arms operation normally assigned to an infantry battalion or company that is task-organized with engineers and other CS and CSS assets as required. As such, it requires the detailed integration and synchronization found in typical breaching operations. (For a detailed discussion of route clearance operations, refer to FM 5-7-30, FM 20-32, and FM 5-71-2.)

c. **Mobility Planning in the Defense.** Mobility operations in the defense ensure the ability to reposition forces, delay, and counterattack. Because of the mobile, offensive nature of the force, mobility planning is a key component of any defensive scheme of maneuver. The commander analyzes the scheme of maneuver, obstacle plan, and terrain to determine mobility requirements. Critical considerations may include--

- Lanes and gaps in the obstacle plan.
- Lane closure plan and sub-unit responsibility.
- Route reconnaissance, improvement, and maintenance.

10-25. COUNTERMOBILITY

Due to the austere engineer force structure, the SBCT infantry battalion engineer performs the majority of obstacle planning and provides detailed integration and resourcing information to the infantry companies in the battalion OPORD. He plans obstacles for both offensive and defensive operations. In either situation, the engineer uses obstacles to develop engagement areas, protect friendly vulnerabilities, and

counteract enemy reactions to friendly maneuver. Because of the mobile nature of the force and the inherently asymmetric, nonlinear environment in which it operates, the engineer relies primarily on scatterable, remotely delivered minefield systems to shape the battlefield. To the infantry company, this normally means integrating ground Volcano and MOPMS into the obstacle plan. The SBCT or battalion engineer designs and resources tactical obstacle groups which companies integrate with direct and indirect fires and construct with engineer support. Obstacle groups consist of one or more individual obstacles that, when integrated with direct and indirect fires, achieve a specific effect (disrupt, fix, block, or turn). The obstacle plan must support the scheme of maneuver, maximize subordinate flexibility, and facilitate future operations.

a. **Obstacle Planning Process.** The obstacle planning process is an integral part of developing both offensive and defensive COAs. It correlates directly with sub-unit maneuver and positioning, engagement area development, and enemy actions. It includes these key components:

- Direct and indirect fires analysis.
- Obstacle intent integration (target, effect, relative location).
- Method of emplacement (conventional or scatterable).
- Obstacle effect priority.
- Mobility requirements.
- Obstacle design and resourcing.
- Marking and reporting obstacle locations.

b. **Barrier Material Resupply.** The S4 normally determines the method (tailgate, service station, or supply point) and location for performing Class IV and V material resupply during the MDMP. He provides resource quantities and tentative resupply node (Class IV and V point and mine dump) locations to companies in the OPORD. SBCT infantry company commanders then analyze resources and mine dump locations based on physical reconnaissance of their AO. Afterwards, the commander submits the results of this refinement to the S4 for adjustment as early as possible.

c. **Mine Dump Operations.** Mine dumps normally contain resources for a single obstacle group but may contain resources for individual obstacles if the distances between obstacles in a group are excessive and would potentially waste an inordinate amount of transportation time. The company commander, in coordination with the supporting engineer, locates the mine dump(s) where they best support obstacle construction within the AO. If a company is assigned more than one obstacle group, it may have more than one mine dump. In light of the austere engineer organization within the force, it is imperative that SBCT infantry companies provide leadership and manpower to operate the mine dump, allowing engineers to construct tactical obstacles more efficiently. This requires close coordination with the supporting engineer.

d. **Obstacle Intent.** Obstacle intent provides a simple framework for the commander to issue guidance and facilitates common understanding and coordination between maneuver and engineer forces. It is at the foundation of the obstacle integration process and includes three components: target, obstacle effect, and relative location.

(1) The *target* is the enemy force that the commander wants to affect with fires and tactical obstacles. The commander identifies the target in terms of size, type, echelon, avenue of approach, or any combination of these.

(2) The *obstacle effect* (see Table 5-1, page 5-11) describes how the commander wants to attack enemy maneuver with obstacles and fires. Tactical obstacles block, turn, fix, or disrupt the enemy. The obstacle effect drives integration by focusing the relationship between obstacles and direct and indirect fires.

(3) The *relative location* is where the commander wants the obstacle effect to occur against the targeted enemy force. Whenever possible, the commander identifies the location relative to the terrain and maneuver or fire control measures to initiate the obstacle integration process.

e. **Scatterable Mines.** Scatterable mines (SCATMINEs) are remotely delivered or dispensed by aircraft, artillery, missile, or ground dispenser and laid without pattern. All US SCATMINEs have a limited active life and self-destruct after that life has expired. The duration of the active life varies with the type of delivery system and mine. SCATMINEs provide the commander with a means to respond to a changing enemy situation with remotely delivered minefields. They enable the commander to emplace minefields rapidly in enemy-held territories, to close lanes in obstacles, and to emplace in other areas where it is difficult for engineers to emplace conventional minefields quickly.

(1) S***catterable Mine Emplacement Authority.*** The corps commander has emplacement authority for all SCATMINEs within the corps AO. He may delegate this authority to lower echelons according to the guidelines contained in Table 10-12.

SYSTEM CHARACTERISTICS	EMPLACEMENT AUTHORITY
Ground- or artillery-delivered, with SD time greater than 48 hours (long duration).	The corps commander may delegate emplacement authority to division level, which may further delegate to brigade level.
Ground- or artillery-delivered, with SD time of 48 hours or less (short duration)	The corps commander may delegate emplacement authority to division level, which may further delegate to brigade level (which may further delegate to battalion level).
Aircraft-delivered (Gator), regardless of SD time.	Emplacement authority is normally at corps, theater, or army command level, depending on who has air-tasking authority.
Helicopter-delivered (Volcano), regardless of SD time.	Emplacement authority is normally delegated no lower than the commander who has command authority over the emplacing aircraft.
MOPMS when used strictly for a protective minefield.	Emplacement authority is usually granted to the company or base commander. Commanders at higher levels restrict MOPMS use only as necessary to support their operations.

Table 10-12. Emplacement authority.

(2) S***catterable Mine Minefield Warning.*** The executing unit sends a SCATMINE warning (SCATMINWARN) to all affected units before, or immediately after, the emplacement of the minefield (Table 10-13). The SCATMINWARN should be disseminated over command nets at all levels to all units operating in the area of the minefield during current and future operations. Absolutely critical components of the SCATMINWARN include the cornerpoint locations, size of safety zone, and self-destruct time.

Line	Message
Alpha	Emplacing system
Bravo	AT (Yes or No)
Charlie	AP (Yes or No)
Delta	4 aim or corner points
Echo	Grid coordinates of aim points/corner points and size of the safety zone
Foxtrot	DTG of the life cycle

Table 10-13. SCATMINEWARN.

(3) S***catterable Mine Delivery Systems.***

(a) *Area-Denial Artillery Munitions (Field Artillery Delivered)*. The wedge-shaped ADAM is a bounding-fragmentation mine that deploys up to seven tension-activated trip wires 6 meters away from the mine. After ground impact, trip wires are released and the mine is fully armed. The lethal casualty radius is between 6 and 10 meters.

(b) *Remote Antiarmor Mines (Field Artillery Delivered)*. The RAAM mine has a cylindrical shape and provides a full-width or catastrophic kill (K-kill). Using a magnetically influenced fuze, the mine projects a bi-directional, shaped-charge warhead through the crew compartment of a vehicle.

(c) *Multiple Delivery Mine System, or Volcano (Ground or Air Delivered)*. The Volcano is mounted on an ICV, cargo truck, or UH-60A Blackhawk helicopter. The Volcano dispenses mines with 4-hour, 48-hour, and 15-day self-destruct (SD) times. The SD times are field-selectable before dispensing and do not require a change or modification to the mine canister. Reload time (not including movement time to the reload site) for an experienced four-man crew is approximately 20 minutes. The average time to emplace one ground Volcano load (160 canisters) is 10 minutes.

(d) *Modular Pack Mine System (Man-Portable)*. The MOPMS is a man-portable, 162-pound, suitcase-shaped mine dispenser. The dispenser contains 21 mines (17 AT and 4 AP). When dispensed, an explosive propelling charge at the bottom of each tube expels mines through the container roof. Mines are propelled 35 meters from the container in a 180-degree semicircle. The safety zone around one container is 55 meters to the front and sides and 20 meters to the rear. Mines are dispensed on command using an M71 remote-control unit (RCU) or an electronic initiating device with firing wire. Once mines are dispensed, they cannot be recovered or reused. If mines are not dispensed, the container may be disarmed and recovered for later use. The RCU can recycle the 4-hour SD time of the mines three times, for a total duration of approximately 13 hours. The RCU can also self-destruct mines on command, allowing a unit to counterattack or withdraw through the minefield. The RCU can control up to 15 MOPMS containers or groups of MOPMS containers from a distance of 300 to 1,000 meters.

(e) *Raptor/Hornet (Man-Portable)*. The Raptor/Hornet wide area mine introduces an entirely new obstacle concept to the combined-arms company. The Raptor/Hornet is an integrated C2/top-attack special munition that type-categorizes, reports, and engages individual vehicles (Figure 10-11, page 10-40). The Raptor is a “smart” remote combat outpost that can provide the force with near-real-time situational understanding and can command and control multiple Hornet mines in a fully integrated obstacle network. It can be programmed to command and control coordinated attacks with other Raptor-controlled

minefields or with direct and indirect fire weapons systems. The Raptor/Hornet can be deactivated, allowing freedom of maneuver through the minefield while still providing near-real-time intelligence and situational understanding. The Raptor/Hornet has standoff detection and engagement capabilities. It attacks from the side or top at ranges up to 100 meters. The Raptor/Hornet--

- Can be a stand-alone tactical obstacle or can reinforce other conventional obstacles.
- Disrupts and delays the enemy, allowing long-range, precision weapons to engage more effectively. (This feature is particularly effective in non-LOS engagements.)
- Can communicate with its employing unit for remote on/off/on or program and battlespace intelligence reporting. The battlespace intelligence data may include target descriptions, numbers, and the direction and rate of movement. It also can provide an early warning of the enemy's activity.
- Can communicate with other munitions for conducting coordinated attacks.

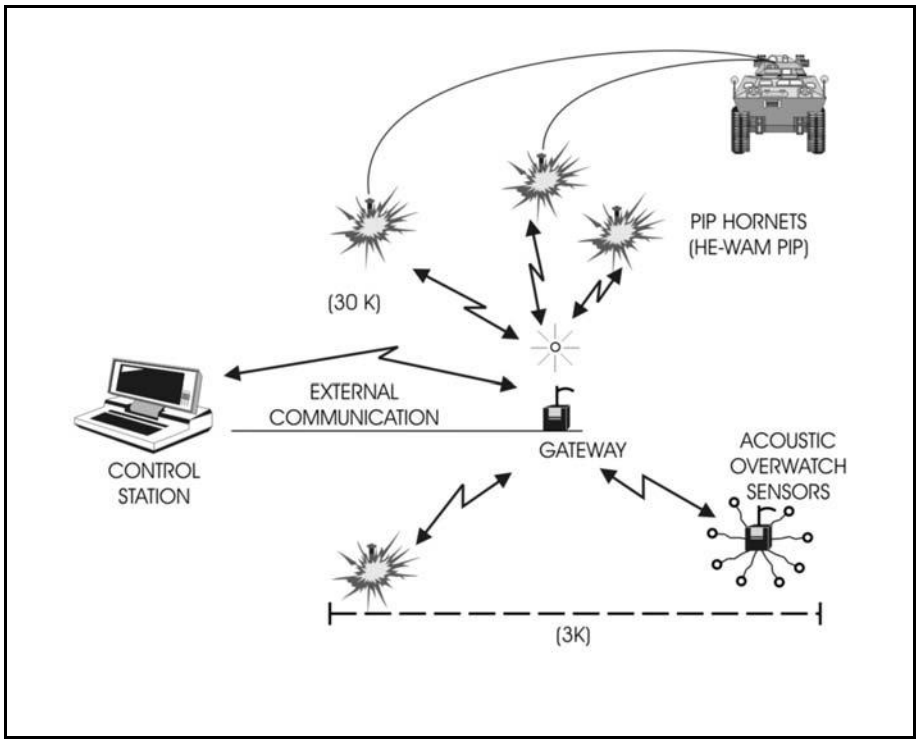


Figure 10-11. Raptor/Hornet concept.

(4) S***catterable Mine Marking.*** The emplacing unit is responsible for marking a SCATMINE (Figure 10-12). This requires direct coordination between the owning maneuver unit and the delivering or emplacing unit. This requirement specifically applies to MOPMS, Volcano (ground-delivered), and Raptor/Hornet minefields. Minefields should be marked on four sides if emplaced to the rear of any friendly unit, including scouts and other units that may require a rearward passage of lines (RPOL).

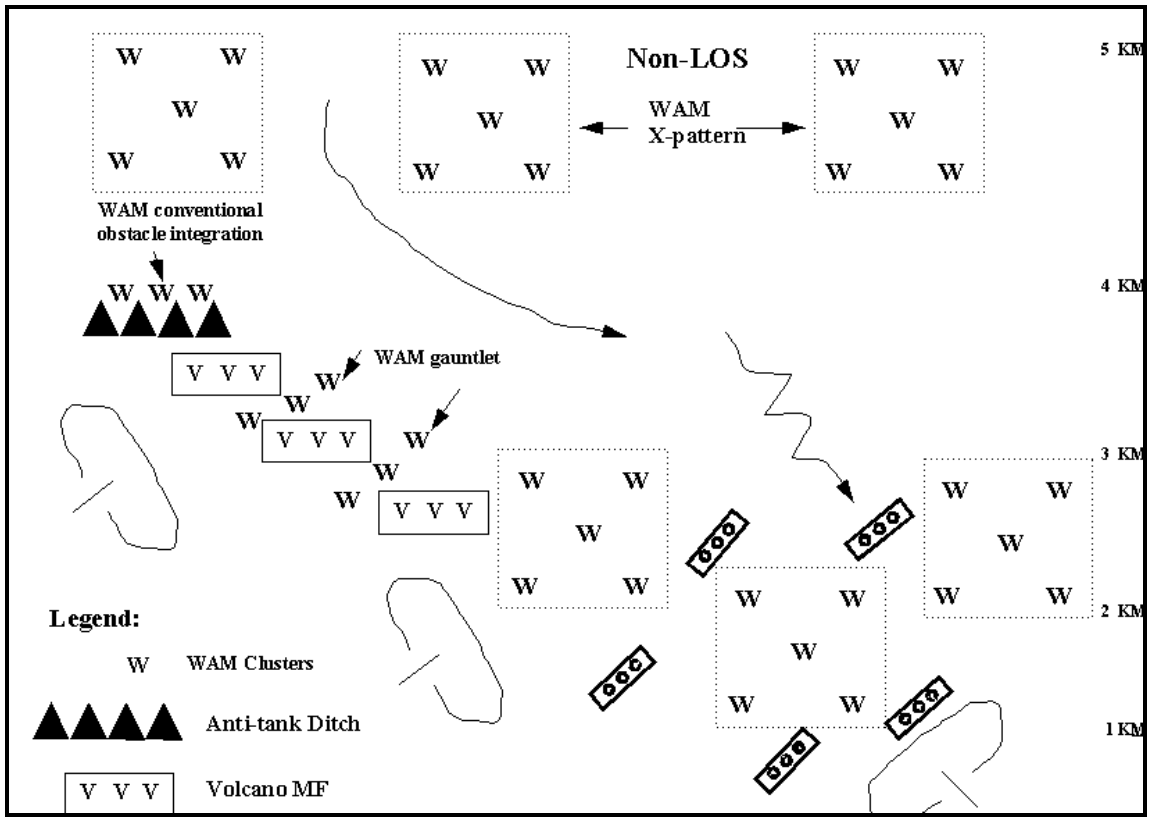


Figure 10-12. SCATMINE marking.

(a) *Safety Zones*. A safety zone is the area where mines may land and activate outside of the planned dimensions of a SCATMINE. The commander must prevent friendly forces from maneuvering into the safety zone during the minefield's life cycle. Depending on its specific location on the battlefield, the safety zone may be marked with a fence.

(b) *Fragment Hazard Zones*. If a SCATMINE antiarmor mine lands and activates on its side and self-destructs, the resulting detonation may cause the shaped-charge to travel along a horizontal trajectory. The maximum fragment hazard zone for all US SCATMINE systems is approximately 640 meters. However, the acceptable risk distance is 235 meters from the outer edges of the minefield's safety zone for troops in the open (Table 10-14, page 10-42).

System	Safety Zone	Fragment Hazard Zone
ADAM/RAAM	500 to 1,500 meters from aim point(s) (depends on delivery method)	235 meters from the outside dimensions of the safety zone
Gator	925 x 475 meters from aim point(s)	1,395 x 945 meters from aim point(s)
Ground Volcano	1,150 x 160 meters	235 meters from start and stop points and the center line
Air Volcano	1,915 x 200 meters	235 meters from start and stop points and the center line
MOPMS	See FM 20-32, Figures 3-15 through 3-17, for specific placement.	235 meters from the outside dimensions of the safety zone

Table 10-14. Safety and fragment hazard zones.

10-26. SURVIVABILITY

Survivability operations protect the force. The SBCT infantry company commander plans, prioritizes, and enforces the survivability effort. The plan should specify the following:

- Level of survivability for each sub-unit position.
- Priority of survivability support by specific unit, type of weapon system, or combination.
- Type of position to be dug for a unit or type of system.
- Sequence and time allocated for platoons to receive blade support.

Additional considerations for survivability planning include command and control of digging assets, site security, CSS (fuel, maintenance, and Class I), and movement times between BPs. The commander should start the survivability effort as soon as practical. He may employ blade assets to support systems such as mortars, C2, and key weapons before the bulk of his combat systems are ready for survivability support. The commander should establish a NLT time or a directed time to be ready for survivability. This helps prevent waste of blade time. Companies prepare their area for the arrival of the blades by marking vehicle positions, identifying leaders to supervise position construction, and designating guides for the blade movement between positions.

Section IV. AIR DEFENSE ARTILLERY

The air defense and aviation coordination cell's (ADACC's) air and missile defense (AMD) analysis determines if the SBCT will be task-organized with air defense assets from a divisional short-range air defense (SHORAD) battalion. Even if the SBCT, and, subsequently the SBCT infantry battalion, receives air defense assets, it is unlikely that the SBCT infantry company will be task-organized with any of the air defense assets. However, Avengers and Linebackers may operate in and around the company AO in support of battalion and brigade assets. Therefore, the company must conduct its own air defense operations, relying on disciplined passive air defense measures and the ability to actively engage aerial platforms with organic weapons systems.

10-27. SYSTEMS, ORGANIZATION, AND CAPABILITIES

The systems that may operate in and adjacent to the company AO are the Avenger and Linebacker (Table 10-15). All systems can operate as man-portable air defense system

(MANPADS) or Stinger teams. A maneuver battalion normally is task organized with an air defense platoon equipped with four Avengers or Bradley Linebacker firing units. The company may have an air defense section moving with it; however, this section normally remains part of the air defense platoon, responsible for providing DS, GS, or general support-reinforcing (GS-R) coverage to the battalion.

Man-Portable System 	**Personnel: 2-man crew** **Basic load: 6 missiles basic load w/ M998 HMMWV** **Acquisition/range: Visual** **Engagement range: 5 km** **Engagement altitude: 3 km +** **Mutual support: 2 km +**
Bradley Linebacker 	**Personnel: 4-man crew** **Basic load: 10 missiles (4 ready to fire, 6 stowed)** **Acquisition/range: Visual/thermal** **Engagement range: 5 km (Stinger), 2500 m 25-mm, 900 m coax** **Engagement altitude: 3 km +** **Mutual support: 3 km** **Emplacement time: Fire on the move** **Reload time: 4 minutes**
Avenger 	**Personnel: 2 man crew** **Basic load: 8 ready-to-fire missiles, 250 rds .50 cal** **Acquisition/range: Visual/FLIR 9-10 km, laser range finder** **Engagement range: 5 km +, .50 cal range: 6,470 m** **Rate of fire: 1025 rpmEngagement altitude: 3 km +** **Mutual support: 3 km** **Emplacement time: 6 minutes, can remote operations out to 50 meters**

Table 10-15. Air defense systems.

10-28. EMPLOYMENT OF AIR DEFENSE SYSTEMS

In offensive situations, Avenger and Bradley Linebacker units accompany the main attack. They may maneuver with the battalion's lead companies, orienting on low-altitude air avenues of approach. When the unit is moving or in a situation that entails short halts, the Bradley's primary weapon is the 25-mm chain gun, which has an effective range of 2,000 meters. Consequently, to assure mutual support, Linebackers maneuver no farther than 1,000 meters away from other company elements. The Stinger gunners can dismount to provide air defense when the unit reaches the objective or pauses during the attack. In

the defense, Avenger Bradley Linebacker units establish BPs based on available IPB information and the company commander's scheme of maneuver. Squads are positioned approximately 2 kilometers apart to maximize the air defense vehicles' defensive capabilities. Avengers and Linebackers are often used to protect counterattacking maneuver units that are vulnerable to detection and attack by enemy air forces.

10-29. WEAPONS CONTROL STATUS

The weapons control status (WCS) describes the relative degree of control in effect for air defense fires. It applies to all weapons systems. The weapons control status is dictated in the battalion OPORD and may be updated based on the situation. The three levels of control are--

a. **Weapons Free.** Crews can fire at any air target not positively identified as friendly. This is the least restrictive weapons control status level.

b. **Weapons Tight.** Crews can fire only at air targets positively identified as hostile according to the prevailing hostile criteria.

c. **Weapons Hold.** Crews are prohibited from firing except in self-defense or in response to a formal order. This is the most restrictive control status level.

10-30. EARLY WARNING PROCEDURES

Air defense warnings (ADWs) include--

- RED - Air or missile attack imminent or in progress.
- YELLOW - Air or missile attack probable.
- WHITE - Air or missile attack not likely.

While air defense warnings cover the probability of hostile air action over the entire theater of war or operations, local air defense warnings describe with certainty the air threat for a specific part of the battlefield. Air defense units use these local warnings to alert Army units to the state of the air threat in terms of "right here, right now." There are three local air defense warning levels:

- DYNAMITE - Air platforms are inbound or are attacking locally now.
- LOOKOUT - Air platforms are in the area of interest but are not threatening. They may be inbound, but there is time to react.
- SNOWMAN - No air platforms pose a threat at this time.

NOTE: The area air defense commander routinely issues air defense warnings for dissemination throughout the theater of war or operations. These warnings describe the general state of the probable air threat and apply to the entire area.

10-31. REACTION PROCEDURES

Reaction procedures include both passive and active air defense measures.

a. **Passive Air Defense.** Passive air defense consists of all measures taken to prevent the enemy from detecting or locating the unit, to minimize the target acquisition capability of enemy aircraft, and to limit damage to the unit if it comes under air attack. One advantage the company can exploit is that target detection and acquisition are difficult for crews of high-performance aircraft. In most cases, enemy pilots must be able to see and identify a target before they can launch an attack.

(1) ***Guidelines.*** The SBCT infantry company should follow these guidelines to avoid detection or limit damage:

- When stopped, occupy positions that offer cover and concealment; dig in and camouflage vehicles that are exposed. When moving, use covered and concealed routes.
- Disperse vehicles as much as possible to make detection and attack more difficult.
- Wipe out track marks leading to vehicle positions and eliminate or cover the spoil from dug-in positions.
- If moving when an enemy aircraft attacks, disperse and seek covered and concealed positions.
- Do not fire on a hostile fixed-wing aircraft unless it is clear that the aircraft has identified friendly elements. Premature engagement compromises friendly positions.
- Designate air guards for every vehicle and position; establish and maintain 360-degree security.
- Establish an air warning system in the unit SOP, including both visual and audible signals.

(2) ***Procedures.*** When the company observes fixed-wing aircraft, helicopters, or UAVs that could influence its mission, it initially takes passive air defense measures unless the situation requires immediate active measures. This reaction normally takes the form of each platoon's React to Air Attack battle drill; however, the commander can initiate specific passive measures if necessary. Refer to the passive air defense guidelines for the company discussed earlier in this section.

NOTE: Passive air defense also includes the company's preparations for conducting active air defense measures.

Passive air defense involves these three steps:

(a) Step 1 - Alert the company with a contact report.

(b) Step 2 - Deploy or take the appropriate actions. If the company is not in the direct path of an attacking aircraft, the commander or platoon leaders order vehicles to seek cover and concealment and halt with at least a 100-meter interval between vehicles. They also may be ordered to continue moving as part of the battalion.

(c) Step 3 - Prepare to engage. Fighting vehicle crews prepare to engage the aircraft with machine gun or main gun fire on order of the commander or their platoon leader.

b. **Active Air Defense.** If the commander determines that the SBCT infantry company is in the direct path of attacking aircraft, he initiates active air defense procedures, including React to Air Attack drills by the company's platoons. Active air defense entails the following steps:

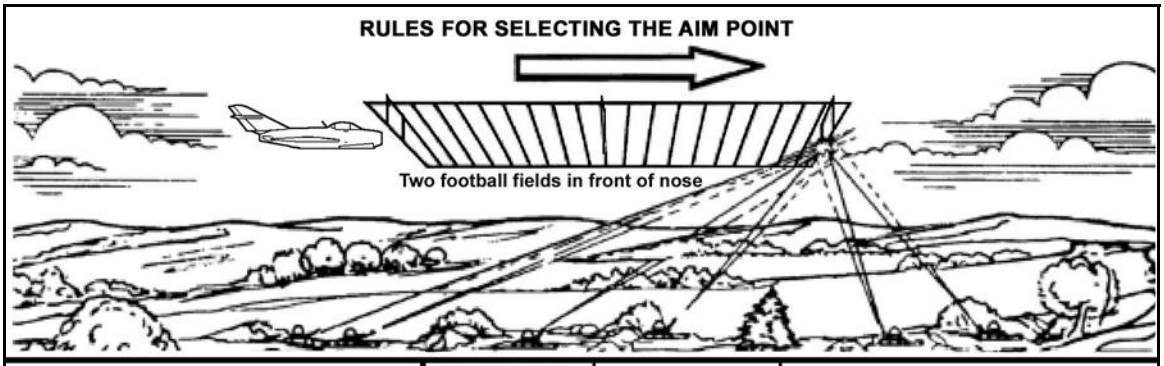
(1) Step 1 - Initiate fires. The primary intent is to force aircraft to take self-defense measures that alter their attack profile and reduce their effectiveness. Leaders may use a tracer burst to designate an aim point for machine gun antiaircraft fires (see Figure 10-13, page 10-46). Volume is the key to effectiveness; ICVs and MGSs throw up a "wall of steel" through which aircraft must fly. The MGS main gun and Javelin missiles are effective in company air defense employment against hovering attack helicopters; the

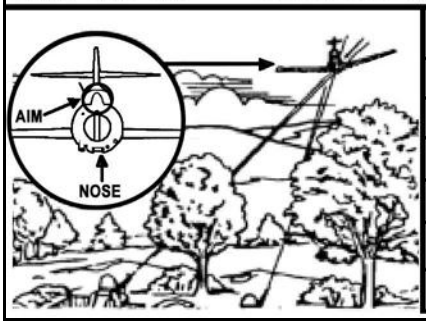
MGS main gun and ICV M2s are effective against moving helicopters, and the tank main gun multipurpose antitank (MPAT) round is effective against high-performance aircraft.

(2) Step 2 - Create a nonlinear target. Vehicles move as fast as possible at a 45-degree angle away from the path of flight and toward attacking aircraft. Each platoon maintains an interval of at least 100 meters between vehicles, forcing aircraft to make several passes to engage the entire platoon.

(3) Step 3 - Move quickly to covered and concealed positions and stop. Vehicles freeze their movement for at least 60 seconds after the last flight of aircraft has passed.

(4) Step 4 - Send a spot report (SPOTREP). The company commander or XO updates the battalion commander on the situation as soon as possible.





TYPE AERIAL PLATFORMS	COURSE	AIM POINT
JET/CRUISE MISSILE	CROSSING	TWO FOOTBALL FIELDS IN FRONT OF NOSE
JET/CRUISE MISSILE	OVERHEAD	TWO FOOTBALL FIELDS IN FRONT OF NOSE
JET/CRUISE MISSILE	DIRECTLY AT YOU	SLIGHTLY ABOVE AIRCRAFT NOSE
HELICOPTER/UAV	CROSSING	ONE-HALF FOOTBALL FIELD IN FRONT OF NOSE
HELICOPTER	HOVERING	SLIGHTLY ABOVE HELICOPTER BODY
HELICOPTER/UAV	DIRECTLY AT YOU	SLIGHTLY ABOVE HELICOPTER BODY

Figure 10-13. Machine-gun aim points against helicopters and high-performance aircraft.

Section V. NBC SUPPORT

NBC assets within the SBCT are limited; therefore, it is imperative that the companies practice the fundamentals of NBC defense, avoidance, protection, and decontamination in order to survive on a contaminated battlefield.

10-32. RECONNAISSANCE SUPPORT

The NBC reconnaissance platoon organic to the RSTA squadron is the only internal NBC reconnaissance available to the SBCT. The NBC reconnaissance platoon can locate, identify, and mark areas of contamination. Since NBC reconnaissance assets are limited, the SBCT infantry company commander must plan for alternate means of conducting NBC reconnaissance (such as scouts and MPs).

10-33. DECONTAMINATION SUPPORT

External decontamination support is not available at the company level. For operational decontamination, the SBCT infantry company must request support from the SBCT infantry battalion decontamination team, which is equipped with the modular decontamination system (MDS). Thorough decontamination operations require the support of an external decontamination platoon. The company must request this support through the SBCT infantry battalion and SBCT S3 sections. The contaminated company will be tasked to augment the decontamination platoon during the conduct of thorough decontamination operations. (For a more detailed discussion of decontamination requirements, refer to FM 3-5).

CHAPTER 11
COMBAT SERVICE SUPPORT OPERATIONS

Simply stated, the role of combat service support in any military unit is to sustain the force for continuous combat operations. Within the SBCT, a brigade support battalion (BSB) will provide the distribution of supplies and services to company, troop, and battery level. Depending on METT-TC, volume of supplies, expected future operations, and current situation, that level of distribution may be to battalion, company/team, or platoon level. Generally, distribution to SBCT infantry battalions is provided to the company/team. Distribution to other SBCT units will be executed on an "area support" basis and normally will occur at the same time as the parent battalion under the current task organization of units. At the SBCT infantry company level, the SBCT infantry company commander has ultimate responsibility for CSS. The executive officer and the first sergeant are the SBCT infantry company's primary CSS operators; they work closely with the SBCT battalion staff to ensure they receive the required support for the company's assigned operations.

Section I. CSS PLANNING CONSIDERATIONS

SBCT battalion and SBCT infantry company commanders, as well as the SBCT battalion S4, make plans and key decisions concerning CSS. The battalion S4, company executive officer, company first sergeant, company supply sergeant, platoon sergeants, and squad leaders implement these plans. Platoon leaders plan and make CSS decisions to accomplish their assigned missions according to guidance from higher headquarters and SOPs. Unit SOPs should address planning, implementation, and responsibilities in detail and should standardize as many routine CSS operations as possible.

11-1. GENERAL GUIDELINES

In SBCT infantry battalions, the health service support assets are assigned to the battalion headquarters company. The battalion medical platoon provides HSS to the companies. The brigade support battalion provides each SBCT infantry company with key logistics support, such as equipment, supplies, and other support functions including petroleum, oils, and lubricants (POL) and transportation requirements. The respective battalion staff supports other CSS functions, such as personnel, legal, and religious (for example, the S1 and unit ministry team [UMT])).

a. Within this support structure, the SBCT infantry company must plan, prepare, and execute its portion of the SBCT battalion CSS plan. Concurrent with other operational planning, the company develops its CSS plan during mission analysis and refines it in the war gaming portion of the troop-leading process. CSS rehearsals are normally conducted at both SBCT battalion and company levels to ensure a smooth, continuous flow of materiel and services.

b. The company's basic CSS responsibilities are to report and request support requirements through the correct SBCT battalion channels and to ensure that CSS operations are properly executed when support elements arrive in the company area. The XO and 1SG are normally in charge of these functions, with guidance and oversight provided by the

company commander. They must submit accurate personnel and logistical reports, along with other necessary information and requests.

11-2. COMPANY RESPONSIBILITIES

The SBCT infantry company headquarters is responsible for the coordination and execution of CSS functions within the company. This includes reporting current status, requesting supplies or support, and conducting effective CSS operations within the unit. The primary CSS functions required by the SBCT infantry company include casualty evacuation, resupply operations, maintenance activities, and personnel service support. The following SBCT infantry company personnel have the primary responsibility for company CSS.

a. **Commander.** The commander ensures that CSS operations sustain his company's fighting potential. He integrates CSS activities into the tactical plan and provides guidance to the CSS operators. He tailors his CSS operations to meet the tactical plan.

b. **Executive Officer.** The XO coordinates and supervises the company's logistical effort. During the planning, he receives status reports from the platoon leaders, platoon sergeants, and 1SG; reviews the tactical plan with the company commander to determine company CSS requirements; and coordinates these needs with the battalion S4. During execution, the XO locates at the second most important place on the battlefield, as determined by the company commander. At times, this is the place from which he can best supervise sustainment operations. The XO also performs the following CSS functions:

- Determines the location of the company's resupply point based on data developed during operational planning and the war gaming process.
- Compiles periodic status reports from the platoon leaders, the PSGs, and the 1SG; provides updates to the commander as required.
- Along with the 1SG, ensures that the company executes CSS operations in accordance with the SBCT battalion plan and SOP.
- Ensures the CSS needs of supporting units are met.

c. **First Sergeant.** The company 1SG is a fighter first and logistician second. In addition to his tactical responsibilities listed in Chapter 1, the 1SG will be a key player in CSS operations for the company. He also is a key player in the execution of the company's CSS plan and may supervise the company trains based upon commander intent and the factors of METT-TC. He ensures that the XO receives current status reports from all subordinate units, assists the XO in preparing reports and requests to battalion, and helps the XO or commander prepare paragraph 4 of the OPORD.

(1) The 1SG ensures receipt, consolidation, and forwarding of all logistics, personnel, and casualty reports to the battalion combat trains CP. He normally supervises the evacuation of casualties, EPWs, and damaged equipment. He normally supervises company resupply activities and monitors company maintenance activities.

(2) The 1SG orients new replacements and assigns them to squads and platoons IAW the company commander's guidance.

(3) The 1SG ensures the required information is received from the platoon and section sergeants and the senior trauma specialist. These NCOs are responsible for providing all CSS reports IAW the SBCT infantry company SOP.

(4) The 1SG may also perform the following CSS functions:

- Conduct CSS rehearsals at the company level and integrate CSS into the company's maneuver rehearsals.
- Normally direct and supervise the medical team and move it forward when the situation requires.
- Maintain the battle roster for the company.

d. **Supply Sergeant.** The supply sergeant is the company representative in the BSA.

(1) He verifies the logistics package (LOGPAC) and moves with the LOGPAC forward to the company. He assists with resupply and coordinates the company's CSS requirements with the BSB's supply support platoon leader and the SBCT infantry battalion S4. The supply sergeant may control the medical evacuation vehicle when it is unable to remain forward with the company. He monitors the tactical situation and adjusts the CSS plan as appropriate to meet the tactical plan and the company commander's guidance. He may assist the commander by establishing caches. He forecasts the company's consumption of food, water, ammunition, POL, and batteries, based on the operation.

(2) The supply sergeant also performs the following CSS functions:

- Coordinates with the battalion S4 for resupply of Classes I, III, and V.
- Maintains individual supply and clothing records; requisitions Class II resupply as needed.
- Requests Class IV and Class VII equipment and supplies.
- Coordinates with the SBCT infantry battalion's combat repair team (CRT) to turn in and pick up maintenance documents, routine Class IX supplies, and recoverable materials.
- Picks up replacement personnel and, as necessary, delivers them to the 1SG.
- Receives and evacuates human remains and personal effects to the mortuary affairs point in the BSA.
- Transports, guards, and transfers EPWs as required.
- Accompanies the LOGPAC to the logistics release point (LRP) and guides the LOGPAC to the company resupply point.
- Accompanies the LOGPAC along with EPWs and damaged vehicles (if applicable) back to the BSA.
- Coordinates with the SBCT battalion S1 section to turn in and pick up mail and personnel action documents.
- Collects hazardous material (HAZMAT) and transports it to collection points as part of LOGPAC procedures.
- Maintains and provides supplies for company field sanitation activities.

e. **Platoon Sergeant.** Each PSG in the company performs the following CSS functions:

- Ensures crews perform proper maintenance on all assigned equipment.
- Compiles and submits all personnel and logistics status reports for the platoon as directed or in accordance with SOP.
- Collects each equipment inspection and maintenance form (DA Form 2404 or 5988) within the platoon.
- Obtains supplies and equipment (all classes except Class VIII) and mail from the supply sergeant and ensures proper distribution within the platoon.

f. **Senior Trauma Specialist/Senior Company Medic.** The senior trauma

specialist/senior company medic is attached to the rifle company to provide emergency medical treatment for sick, injured, or wounded company personnel. Emergency medical treatment procedures performed by the trauma specialist may include opening an airway, starting intravenous fluids, controlling hemorrhage, preventing or treating for shock, splinting fractures or suspected fractures, and providing relief for pain. The EMT performed by the trauma specialist is under the supervision of the battalion surgeon or physician's assistant (PA). The senior trauma specialist/company medic is responsible for--

- Overseeing and providing guidance to each platoon medic as required.
- Triaging injured, wounded, or ill friendly and enemy personnel for priority of treatment as they arrive at the company CCP.
- Overseeing sick call screening for the company.
- Requesting and coordinating the evacuation of sick, injured, or wounded personnel under the direction of the company 1SG.
- Assisting in the training of the company personnel on first aid and combat lifesavers in enhanced first-aid procedures.
- Requisitioning Class VIII supplies from the BAS for the company according to the TSOP.
- Recommending locations for company CCPs.
- Providing guidance to the company's combat lifesavers as required.
- Monitoring the tactical situation and anticipating and coordinating health service support (HSS) requirement and Class VIII resupply as necessary.
- Advising the company commander and 1SG on mass casualty operations.
- Keeping the 1SG informed on the status of casualties and coordinating with him for additional HSS requirements.

Section II. SOLDIER'S LOAD

The soldier's load is of crucial concern of the leader. How much is carried, how far, and in what configuration are important mission considerations requiring command emphasis. Army research indicates that a soldier can carry an amount equal to 30 percent of his body weight and still retain a high percentage of his agility, stamina, alertness, and mobility. For the average soldier (weighing 160 pounds), this would be a 48-pound load. Success and survival in SBCT infantry company operations demand that soldiers retain these capabilities. When unable to move with stealth, agility, and alertness, the unit is at risk. For each pound over 30 percent, the soldier loses a proportional amount of his functional ability. When his load exceeds 45 percent of his body weight, or an average of 72 pounds, his functional ability drops rapidly, and his chances of becoming a casualty increase. Research also indicates that training can improve load-carrying capability by 10 to 20 percent at best. Commanders must ensure soldiers carry no more than 48 pounds when in contact with the enemy or when enemy contact is expected. At other times, the soldier's load should not exceed 72 pounds. Sometimes soldiers may have to carry more than the recommended combat weight, but leaders must realize how that excess weight impacts the unit's effectiveness. (FM 3-25.18 [FM 21-18]) provides additional information on the soldier's load.)

11-3. LOAD PLANNING

The purpose of load planning is two fold. First, it allows the SBCT infantry company commander to use the estimate of the situation to determine what ammunition, supplies, and equipment are essential. Second, it recognizes the potential impact of the soldier-load problem and emphasizes the need to carry only what is necessary. The commander then arranges for the remainder of the load to be secured or transported. The company commander must consider METT-TC to determine the transition from vehicle load to dismounted movement load, thus determining the soldier's load to be carried by the company. The company commander breaks down the company's equipment and supplies into one of the three echelons: combat load (approach march or fighting load), sustainment load, and contingency load (Figure 11-1). The flexibility of the SBCT company allows the company commander to plan and conduct load planning for mounted and dismounted movement. The company commander must tailor his load plan to meet his mission requirements and the unique flexibility of the company to move mounted and dismounted.

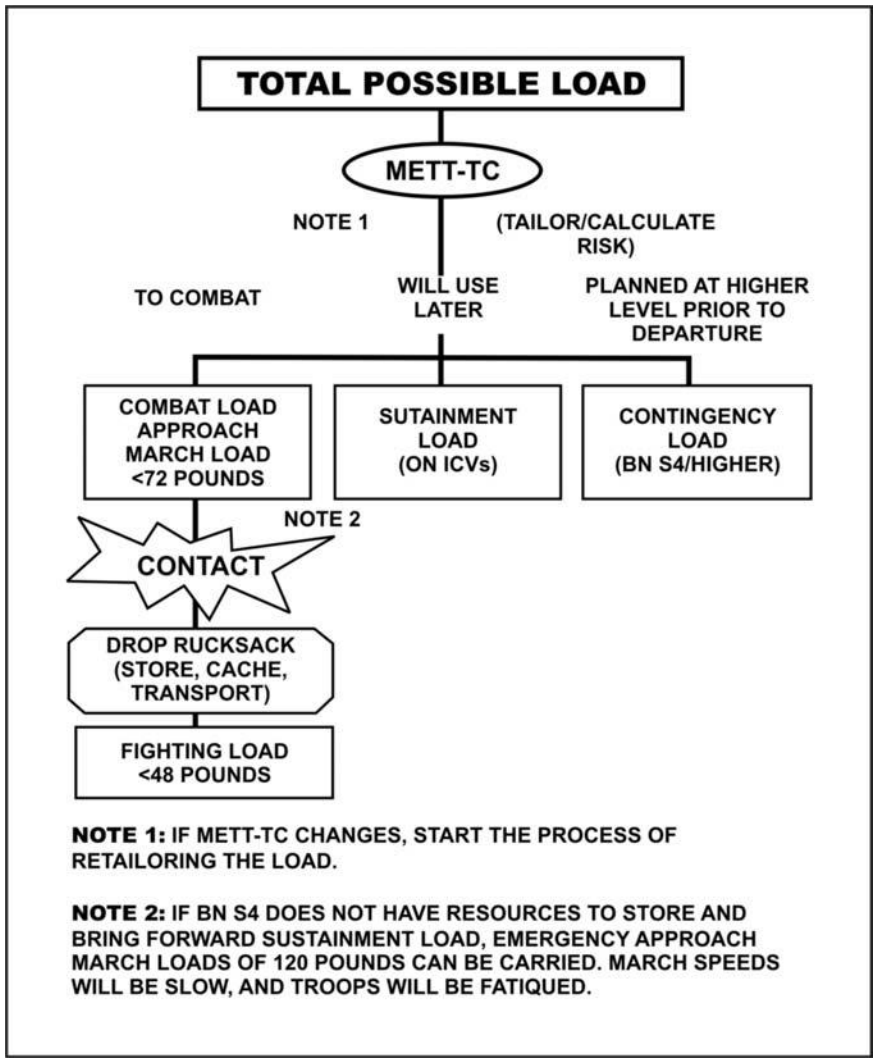

TOTAL POSSIBLE LOAD
METT-TC
NOTE 1
(TAILOR/CALCULATE RISK)
TO COMBAT
WILL USE LATER
PLANNED AT HIGHER LEVEL PRIOR TO DEPARTURE
COMBAT LOAD APPROACH MARCH LOAD <72 POUNDS
SUTAINMENT LOAD (ON ICVs)
CONTINGENCY LOAD (BN S4/HIGHER)
NOTE 2
CONTACT
DROP RUCKSACK (STORE, CACHE, TRANSPORT)
FIGHTING LOAD <48 POUNDS
NOTE 1: IF METT-TC CHANGES, START THE PROCESS OF RETAILORING THE LOAD.
NOTE 2: IF BN S4 DOES NOT HAVE RESOURCES TO STORE AND BRING FORWARD SUSTAINMENT LOAD, EMERGENCY APPROACH MARCH LOADS OF 120 POUNDS CAN BE CARRIED. MARCH SPEEDS WILL BE SLOW, AND TROOPS WILL BE FATIQUED.

Figure 11-1. Load echelon diagram.

a. **Combat Load.** A combat load consists of the minimum mission-essential equipment, as determined by the mission commander. This includes only what is needed to fight and survive immediate combat operations. There are two levels of combat load: fighting loads, which are carried on dynamic operations where contact with the enemy is expected, and approach march loads, which are carried when transportation cannot be provided for equipment over and above fighting loads.

(1) ***Fighting Load.*** A fighting load is what the soldier carries once contact has been made with the enemy. It consists only of essential items the soldier needs to accomplish his task during the engagement. For close combat and operations requiring stealth, any load at all is a disadvantage. Cross loading of machine-gun ammunition, mortar rounds, antitank weapons, and radio equipment causes most combat loads to exceed 48 pounds. This is where risk analysis is critical. Excessive combat loads of assaulting troops must be configured so that the excess can be redistributed or shed (leaving only the fighting load) before or upon contact with the enemy.

(2) ***Approach March Load.*** This is the load that the soldier carries in addition to his fighting load. These items, if not kept on the ICVs, are dropped in an assault position, ORP, or other rally point before or upon contact with the enemy. On long dynamic operations, soldiers must carry enough equipment and munitions to fight and exist until a planned resupply can take place. These loads vary and may exceed the goal of 72 pounds.

b. **Sustainment Load.** A sustainment load consists of the equipment required by the company commander for sustained operations. Ideally, this equipment is carried on the ICVs. However, under some circumstances this equipment may be stored by the company supply section in the BSA and brought forward when needed. A sustaining load can include rucksacks, squad duffel bags, and sleeping bags. In combat, protective items for specific threats, such as armored vests and chemical protective overgarments (CPOGs), if not carried on the ICVs, may be stored in preconfigured unit loads. Commanders must coordinate with the battalion S4 to ensure that all sustainment load items are available.

c. **Contingency Load.** The contingency load includes all other items that are not necessary for ongoing operations, such as extra clothing, personal items, or even Javelins in a nonarmored threat environment. The austere structure of the SBCT has constrained its ability to store and maintain contingency stocks. The critical element for company commanders to determine is what goes in these loads and who is responsible for the storage and delivery of them.

11-4. LOAD CALCULATION

The combat load for each soldier consists of three components: common essential items carried (worn) by all soldiers regardless of threat, environment, or mission; duty position load, consisting of the soldier's assigned weapon (or components of the weapon system) plus ammunition; and variables, consisting of all other items carried, based on the commander's estimate of the situation. The latter are items that constitute the environmental, threat protection, and mission loads. When calculating load requirements, leaders should--

- Adjust combat loads so soldiers carry less than 72 pounds.
- Divide combat loads into fighting loads and approach march loads.
- Have soldiers pack rucksacks and assault packs accordingly.
- Place all other company equipment into the sustainment load.

Once he decides what items soldiers will carry on the mission, the leader decides how they will carry them. Soldiers need some items to be immediately available; other items can be carried in rucksacks.

11-5. LOAD MANAGEMENT TECHNIQUES

The key to load management is to carry only what is necessary to accomplish the mission. The following techniques assist the commander in load management. The commander must also consider his mounted capabilities when determining the company's load management techniques and dismounted transition.

a. Make sure soldiers distribute their loads evenly over the body and load-carrying equipment (LCE).

b. Carry critical items within easy reach: carry water, ammunition, and a first aid pouch on the LCE, with other items in battle dress uniform (BDU) pockets. Ensure that placement of all items is standardized within the unit, and nothing that could prevent the soldier from taking a well-aimed shot is allowed on the firing side of the LCE.

c. Distribute loads throughout the unit. If it is necessary to manpack bulk ammunition, rations, water, or demolitions, divide them into small loads consistent with METT-TC to ensure they can be distributed on the battlefield where needed.

d. Rotate heavy loads among several soldiers. The unit can rotate radios, M240s, mortars, and Javelins if enemy contact is not imminent. Ensure that the assigned gunner stays near the weapons system components if they are rotated.

e. Upon contact with the enemy, drop rucksacks or leave them in an ORP, an assault position, or the assembly area. The leader can later request battalion or SBCT transportation assets to bring them to his unit when possible. Soldiers mark their rucksacks by unit to facilitate quick recovery.

f. Share or consolidate items; if the weather requires soldiers to carry sleeping bags, carry only enough for those who will sleep at the same time. Soldiers can share the bags as they take turns rotating security duty. In the same manner, two or three soldiers can share a rucksack and take turns carrying it.

g. Consider cutting rations to two or even one meal, ready to eat (MRE) per man per day for short periods.

h. While carrying the rucksack, use water and rations carried in or on it first. If soldiers must drop their rucksacks, what they carry in their BDUs and on the LCE remains available. Replace ammunition, water, and rations carried on LCE or in BDU pockets as soon as possible.

i. When carrying radios in rucksacks, keep them attached to the backpack for access and use when rucksacks are dropped.

j. Consider caches, supply linkups, captured stocks, and foraging to provide food, water, shelter, weapons, and equipment to reduce the need to manpack supplies.

k. Avoid unnecessary movement and displacements. To conserve the soldier's stamina, plan the mission as efficiently as possible. Do not move a platoon when moving a squad can do the job. If the leader becomes lost, he stops and determines his unit's location before moving and, if necessary, sends out someone to confirm the unit's location.

l. Supervise the soldier's load closely. Soldiers may carry unnecessary items when they start on a mission and throw essential items away when they are tired. Packing lists for rucksack management and leader inspections before and during the mission ensure that only

necessary items are carried. Rucksack management results in efficient use of a soldier's energy and ensures that essential items are available when needed in combat.

m. The company net does not always need the COMSEC equipment to function effectively. Ensure the threat warrants the extra weight on the RATELOs.

n. Consider distributing the approach march or sustainment loads to only two platoons. This allows the lead platoon to move with more stealth and alertness and to remain unburdened in case of contact. Platoons can then quickly swap rucksacks as they rotate the lead.

Section III. TRAINS

In order to maintain the intent of the SBCT and SBCT infantry battalion commander, each organization at the company level and higher must have a logistical focal point. This focal point is generally described as the "trains." CSS personnel and equipment organic or attached to a force that provides support such as supply, evacuation, and maintenance services comprise the unit trains. The types of trains are described in this section.

11-6. SBCT INFANTRY BATTALION TRAINS

SBCT infantry battalion trains normally consist of two types: combat trains and field trains.

a. **Combat Trains.** The SBCT battalion combat trains normally are positioned close enough to combat elements to be responsive to forward units but beyond the range of enemy direct fires. The SBCT battalion combat trains usually consist of the HHC's medical platoon and the supporting CRT. They are supervised by the combat trains command post (CTCP). The trains are positioned based upon the factors of METT-TC.

b. **Field Trains.** The SBCT battalion field trains normally are positioned in the BSA. The battalion field trains is the primary direct coordination element between the battalion and the BSB. The HHC HQ section provides direct interface with the administrative and logistics support elements of the SBCT battalion and BSB in the BSA. The company normally locates its supply section and corresponding vehicles in the SBCT battalion field trains.

11-7. SBCT INFANTRY COMPANY TRAINS

The company trains are the focal point for company sustainment operations. It is the most forward CSS element, and provides essential medical treatment and maintenance support. The size and composition of the company trains vary depending upon the tactical situation. The trains may consist of nothing more than preplanned locations on the ground (a control measure such as a checkpoint) during fast-paced offensive operations, or the trains may contain two to five tactical vehicles during resupply operations. The company trains are established to conduct evacuation (of wounded in action, weapons, and equipment) and resupply as required. When the company has been allocated an ambulance, it usually locates in the company trains as well. The company trains are located in a covered and concealed position, close enough to the company to provide responsive support, but out of enemy direct fire. The 1SG or XO will position the trains and supervise CSS operations.

11-8. TRAINS SECURITY

Security of CSS elements is critical to the success of the SBCT infantry company and SBCT battalion missions. For this reason, the company and battalion combat trains must develop plans for continuous security operations. Company trains normally operate one terrain feature to the rear of the company. (METT-TC factors dictate the actual distance.) This location gives the company virtually immediate access to essential CSS functions while allowing the trains to remain in a covered and concealed position behind the company combat elements. Where feasible, they may plan and execute a perimeter defense. The trains, however, may lack the personnel and combat power to conduct a major security effort. In such situations, they must plan and implement passive security measures to provide protection from enemy forces.

11-9. COMMUNICATIONS

Fast, reliable communications are critical to the CSS effort. Whether as directed by higher headquarters or as needed to support the SBCT infantry company mission, the XO or 1SG must be able to report instantly the company's status, including combat losses, and to send resupply and support requests.

a. **Force XXI Battle Command Brigade and Below.** FBCB2 is a network of computers, global positioning equipment, and communication systems that provide on-the-move, real-time command and control information to tactical combat arms, CS, and CSS soldiers and leaders. The system provides preformatted, standardized reports allowing the leaders to rapidly disseminate required reports and FRAGOs. The company may use the FBCB2 to transmit its logistical and personnel status reports to the battalion S4 and the company supply sergeant. FBCB2 is the fastest method of disseminating this information. Leaders should verify receipt of all reports sent via FBCB2 either by follow-up message or via FM voice.

b**. FM Voice.** FM communication is still a critical mode of passing required reports. However, it may not be the fastest means and may be the least secure means of communications and poses other problems for the company's CSS operators. The SBCT battalion administrative and logistics net is used for most CSS traffic, but the company may not have enough authorized radio systems to monitor it. When this is the case, a higher net control station must enter the company net to contact the company. Another type of problem can arise when a company enters the A/L net. The transmission of one company may "walk over" another company's report or request. Unit SOPs must specify procedures to be followed in this type of situation to ensure that the battalion trains receive all transmissions on a timely basis.

c. **Messenger.** As an alternative, the company can send CSS reports and requests by messenger or wire. Messengers are slower than radio transmission but more secure. Wire communications are also very secure but are strictly limited in range and coverage and may not be a feasible option in a fast paced operation or non-contiguous environment. For sending lengthy or complex reports and requests, messenger or wire is better than radio transmission.

Section IV. CSS IN THE SBCT

To meet the challenge of supporting the operations of high-speed war fighters and meet time-to-deploy objectives, the SBCT employs an austere CSS package with the minimum

capabilities. The SBCT tailors its combat service support by optimizing the use of CSS resources (through CSS situational understanding) and minimizing the operational and CSS footprint in the area of operations. The result is a CSS force package that is streamlined, strategically mobile, and focused on the sustainment necessities. Split-basing (the concept of locating assets in the rear and forward with all but the immediate essentials held in the rear) and modularity (the concept of creating standardized units which may be located rear or forward) provide just-in-time, tailored support to the SBCT. Supplies are pushed forward from the rear as needed whenever and wherever feasible. Also, highly deployable CSS assets are positioned to enter and depart the area of operations rapidly, as needed, to sustain the force. These concepts are part of CSS reach as discussed below and in FM 4-0 (100-10). The key logistics and CHS provider within the SBCT is the BSB. However, there are other elements in the SBCT that plan and execute CSS operations. This section covers the CSS functions performed by the BSB and those SBCT elements other than the BSB.

11-10. BRIGADE SUPPORT BATTALION

The SBCT brigade support battalion is organized to perform distribution-based, centralized CSS functions in accordance with Army XXI CSS concepts. Logistics functions have been removed from combat and combat support units and consolidated in the BSB. The brigade support battalion (Figure 11-2) consists of the headquarters and three companies: the headquarters and distribution company (HDC), the forward maintenance company (FMC), and the brigade support medical company (BSMC). The austere design of the CSS structure is insufficient to sustain the SBCT in garrison and during extended operations. The combat service support company (CSSC) is the minimum solution to overcome the shortfalls of the BSB during sustained operations. The BSB has no explosive ordinance disposal (EOD) capability.

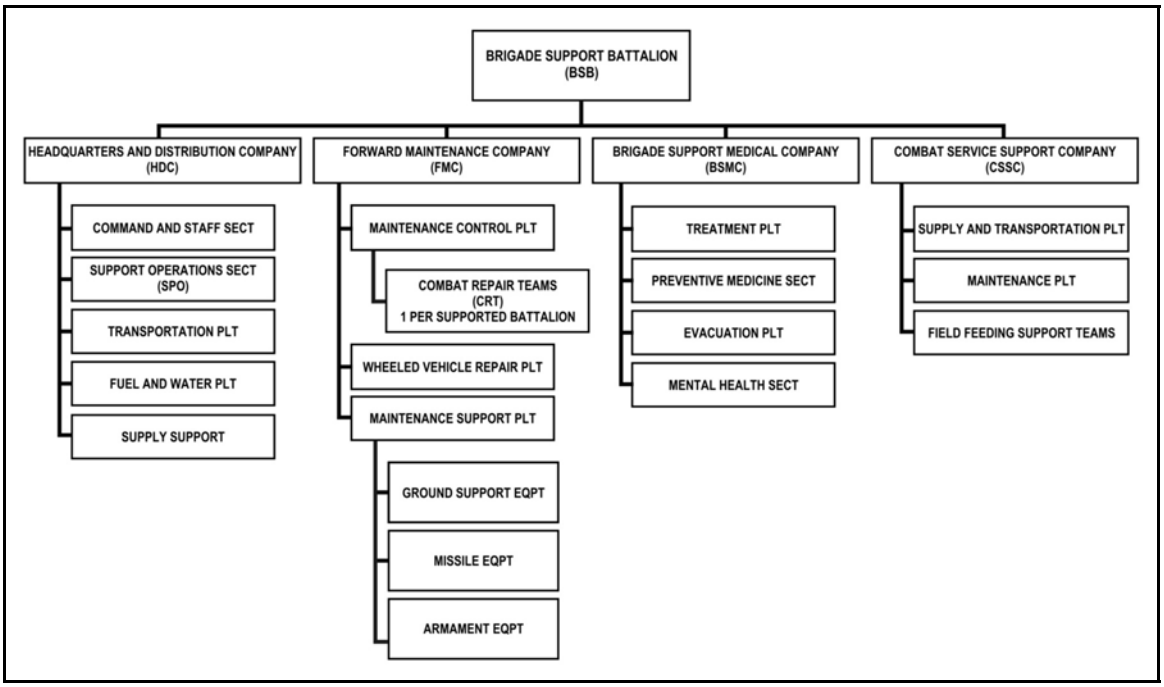


Figure 11- 2. Brigade support battalion.

11-11. S1 SECTION

Battalion personnel sections perform their traditional roles of personnel management, personnel services, and personnel support.

a. **Personnel Management.** S1 sections manage and provide the sustainment tasks of personnel readiness, personnel accounting, strength reporting, and replacement management.

b. **Personnel Services.** When deployed, the S1 performs limited personnel services (awards, promotions, evaluations, and reassignments). S1s will handle pay-input transactions for military pay. The brigade S1 is responsible for verifying unit submissions of Witness Statement/Casualty Feeder Reports against the personnel database and emergency data in the soldier's deployment packet. After verifying information with the appropriate medical treatment facility, the S1 forwards the casualty information through the Army Casualty Information Processing System. Home station assets primarily perform other personnel services via reach-back operations.

c. **Personnel Support.** Postal operations within the SBCT is limited to mail and distribution activities. The brigade S1 section will receive pre-sorted letter mail and small packages. Battalion mail clerks within the S1 sections will pick up incoming mail from, and drop off outgoing to, the brigade mail clerk. Battalions will coordinate with the brigade S1 for provision of morale, welfare, and recreation (MWR) activities and services as the mission permits. The MWR system is a necessary outlet for soldiers to relieve combat stress, which is critical to sustaining the readiness of the force.

11-12. BRIGADE OPERATIONAL LAW TEAM

The brigade operational law team (BOLT) provides legal support in operational law (OPLAW) and either provides or coordinates legal support for the six legal disciplines: military justice, international law, administrative law, civil law (contract law, fiscal law, and environmental law), claims, and legal assistance.

11-13. UNIT MINISTRY TEAM

Unit ministry teams facilitate and coordinate religious support across the battlespace.

a. The UMT works directly for the commander. The UMT, at a minimum, is composed of a chaplain (56A) and an enlisted chaplain assistant (56M). The UMT locates where it can best coordinate, communicate and facilitate religious support throughout the AO.

b. The brigade UMT coordinates religious support throughout the brigade AO. It ensures all units and individuals operating within the AO are provided religious support to include contractors, refugees, displaced persons, detained civilians in the area of operation, and enemy prisoners of war.

c. Chaplains often serve as the "conscience of the command." Chaplains advise the commander on the moral and ethical nature of command policies, programs, and actions, and their impact on soldiers. The UMT is responsible for and supports the free exercise of religion. Chaplains provide support for death notifications, Red Cross notifications by command, and liaison with continental United States (CONUS) and host-nation clergy.

11-14. FINANCIAL MANAGEMENT

Financial management support includes the following:

- Banking and currency and support.
- Procurement support.
- Disbursing support.
- Cost-capturing and accounting.
- Non-US pay, including EPW/counterintelligence (CI), and US pay and travel.

The SBCT has no organic financial management support assets. Finance units must deploy to provide financial management for SBCTs in the same manner they support the rest of the Army.

11-15. ENEMY PRISONERS OF WAR

The SBCT has no organic military police support assets to take control and evacuate EPWs. SBCT OPORDs and SOPs will assign responsibility for EPWs.

Section V. SUPPLY AND TRANSPORTATION OPERATIONS

Each SBCT infantry company deploys with 72 hours of supplies. The SBCT infantry company commander considers his situation to decide on the best means of resupplying his company. Resupply operations are generally classified as routine, emergency, or prestock. Cues and procedures for each method are specified in the company SOP and are rehearsed during company training exercises. The actual method selected for resupply in the field depends on METT-TC factors.

11-16. CLASSES OF SUPPLY

Supplies are divided into 10 major categories, which are referred to as classes (Figure 11-3, page 11-14). There are also a few miscellaneous items that do not fit into any of the other 10 supply classes.

a. **Class I.** Class I supplies (MREs) will be configured into unit-configured loads based on personnel strength reports. These loads will be delivered with the LOGPACs by the BSB's transportation platoon. No unit in the SBCT has organic food service capabilities. Operational rations (MREs) will be used until military augmentation (BSB combat service support company) or contractor support is identified in theater.

b. **Water.** The BSB's fuel and water support platoon is capable of limited purification, storage, and distribution of water. The SBCT is expected to obtain water in the theater of operations. Each day the SBCT infantry company should refill one of its two 400-gallon water trailers.

c. **Class II.** Limited stocks of Class II items (preventive medicine, field hygiene, weapons cleaning, and special tools) will be available at the BSB. Class II (NBC) will be configured at intermediate staging bases (ISBs) and called forward as needed. Class II administrative supplies will not be stocked at the BSB but may be requested as the theater matures.

d. **Class III.** The BSB's fuel and water support platoon has the only bulk fuel storage and distribution capability within the SBCT. The SBCT is expected to obtain fuel in the theater of operations. The battalion S4 will arrange for LOGPACs to deliver fuel based on logistics status reports.

e. **Class IV.** Company SOP specifies the combat load of Class IV items for each vehicle. The BSB's supply support platoon stocks a limited amount of barrier material such

as concertina wire, sandbags, and pickets. Other Class IV must be configured at ISBs and called forward as needed.

f. **Class V.** The SBCT infantry company deploys with a combat load of personal munitions and a turret load of vehicle munitions. The BSB's ammunition transfer point (ATP) section does not deploy with sustainment stocks. Munitions will be delivered to the ATP on HEMMT-load handling system (LHS) flatracks and delivered to battalion release points. The SBCT infantry company will use its personnel and equipment to rearm.

g. **Class VI.** The BSB does not stock Class VI supplies. After 30 days in theater, the supplement health and comfort pack (HCP) ration is usually issued with Class I rations.

h. **Class VII.** Class VII status is reported through command channels; it is intensively managed and command controlled. The BSB will receive replacement items as ready-to-fight systems. Ready-to-fight systems are sent forward with the LOGPAC.

i. **Class VIII.** Medical supplies, such as first aid dressings, refills for first aid kits, water purification tablets, and foot powder, are supplied by the BSB's BSMC to the battalion medical platoon via LOGPAC, ambulance backhaul, or emergency delivery.

j. **Class IX.** The SBCT infantry company stocks limited Class IX to perform organizational maintenance on small arms and communications equipment. The battalion's supporting CRT will either request the appropriate repair parts in response to a specific request or repair the piece of equipment by controlled exchange of serviceable parts. Rechargeable batteries for night vision devices and man-portable radios may require one-for-one exchange. In combat situations, exchange and controlled substitution are the normal means of obtaining Class IX items.

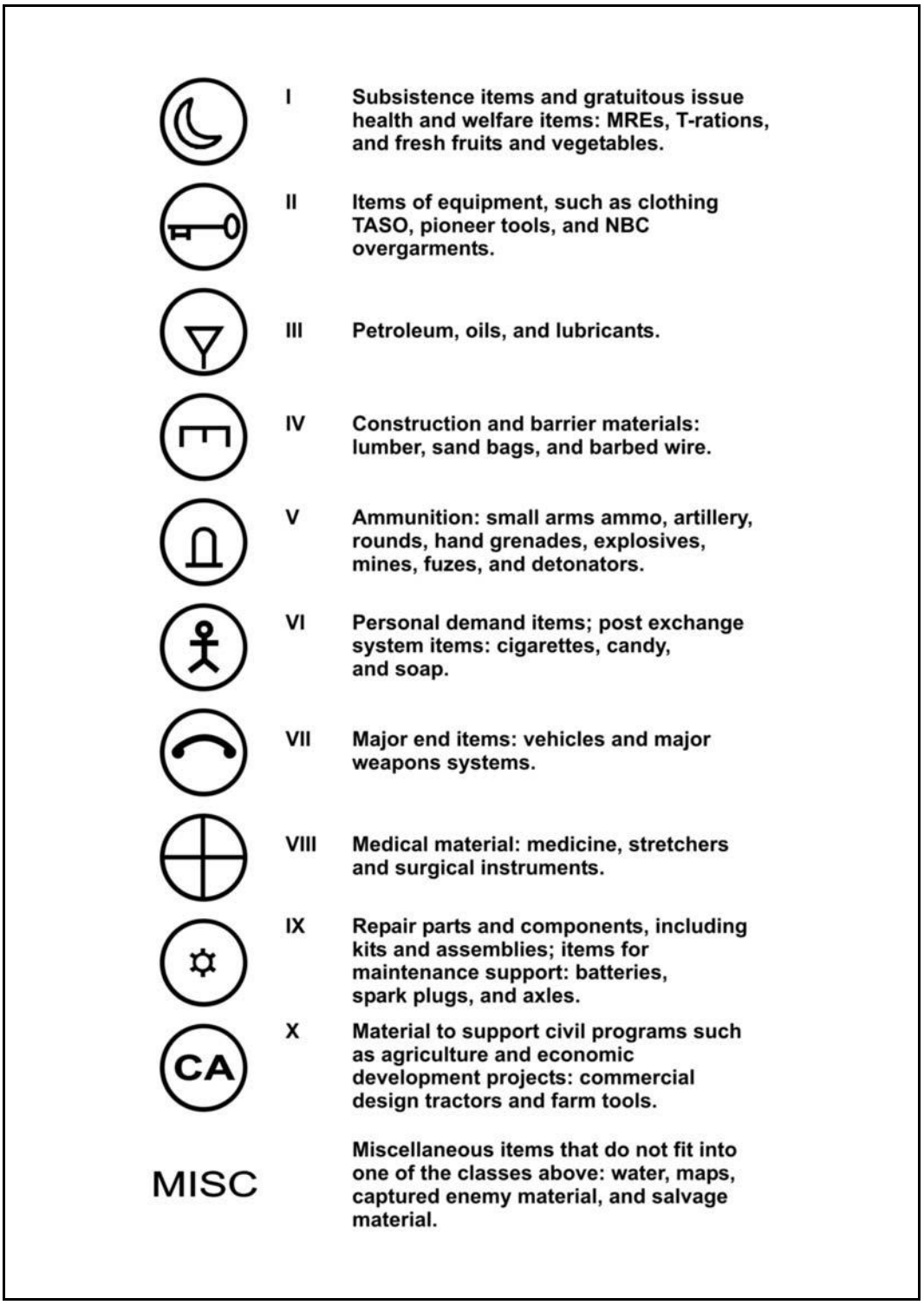

I
Subsistence items and gratuitous issue health and welfare items: MREs, T-rations, and fresh fruits and vegetables.
II
Items of equipment, such as clothing TASO, pioneer tools, and NBC overgarments.
III
Petroleum, oils, and lubricants.
IV
Construction and barrier materials: lumber, sand bags, and barbed wire.
V
Ammunition: small arms ammo, artillery, rounds, hand grenades, explosives, mines, fuzes, and detonators.
VI
Personal demand items; post exchange system items: cigarettes, candy, and soap.
VII
Major end items: vehicles and major weapons systems.
VIII
Medical material: medicine, stretchers and surgical instruments.
IX
Repair parts and components, including kits and assemblies; items for maintenance support: batteries, spark plugs, and axles.
CA
X
Material to support civil programs such as agriculture and economic development projects: commercial design tractors and farm tools.
MISC
Miscellaneous items that do not fit into one of the classes above: water, maps, captured enemy material, and salvage material.

Figure 11-3. Classes of supply.

11-17. ROUTINE RESUPPLY

Routine resupply operations cover items in Classes I, III, V, and IX, as well as mail and any other items requested by the company. Whenever possible, routine resupply should be conducted daily, ideally during periods of limited visibility.

a. **Logistics Package Operations.** The LOGPAC technique is a simple, efficient way to accomplish routine resupply operations. SBCT infantry company, SBCT infantry battalion, and BSB SOPs specify the exact composition and execution order of the LOGPAC.

(1) ***Preparation.*** The company supply sergeant first compiles and coordinates all the company's supply requests. Based on the requests, he then verifies the LOGPAC with the assistance of the BSB supply support platoon leader. The BSB focuses on the resupply side of the LOGPAC. The company supply sergeant focuses on the other needs of the company to include--

- Replacement personnel and soldiers returning from medical treatment.
- Vehicles returning to the company area from maintenance.
- Mail and personnel action documents (including awards and finance and legal documents) from the SBCT battalion S1 section.

When LOGPAC preparations are complete, the supply sergeant receives an update of the company's location and LRP via FBCB2 or FM voice. He will accompany the LOGPAC to the LRP where he will assume control of the company LOGPAC. The supply sergeant and LOGPAC move through the LRP to the company resupply point and link up with the XO or 1SG.

(2) ***Actions at the LRP.*** When the LOGPAC arrives at the LRP, the company supply sergeant quickly assumes control of the company LOGPAC and continues tactical movement to the company resupply point. The LOGPAC will stop at the LRP only when the tactical situation dictates or when ordered by the commander. Security will be maintained at all times.

(3) ***Resupply Procedures.*** The company can use the service station or tailgate resupply method, both of which are discussed later in this section. The time required for resupply is an important planning factor. Resupply must be conducted as quickly and efficiently as possible, both to ensure operational effectiveness and to allow the company LOGPAC to return to the LRP on time. Service station resupply of the company normally takes 60 to 90 minutes but may take longer. Tailgate resupply usually requires significantly more time than service station resupply.

(4) ***Return to the LRP.*** Once resupply operations are complete, the LOGPAC vehicles are prepared for the return trip. Company vehicles requiring evacuation for maintenance are lined up and prepared for towing. Human remains and their personal effects are carried on cargo trucks, fuel trucks, or disabled vehicles. EPWs ride in the cargo trucks and are guarded by walking wounded or other company personnel. All supply requests and personnel action documents are consolidated for forwarding to the field trains, where the appropriate staff section processes them for the next LOGPAC. The supply sergeant leads the LOGPAC back to the LRP where he links up with the BSB transportation platoon leader or moves through the LRP to the BSA. It is critical that the LOGPAC continue to move through the LRP to avoid interdiction by enemy forces or artillery. Whenever possible, the reunited LOGPAC convoy returns to the BSA together. When METT-TC dictates or when the LOGPAC arrives too late to rejoin the larger convoy, the company vehicles must return to the BSA on their own.

b. **Resupply Methods (Mounted).** As directed by the commander or XO, the 1SG establishes the company resupply point using either the service station or tailgate method. He briefs each LOGPAC driver on which method to use. When the resupply point is ready,

the 1SG informs the commander, who in turn directs each platoon or element to conduct resupply based on the tactical situation.

(1) ***Service Station Resupply.*** With the service station method, vehicles move individually or in small groups to a centrally located resupply point. Depending on the tactical situation, one vehicle or section, or even an entire platoon, moves out of its position, conducts resupply operations, and then moves back into position. This process continues until the entire company has been resupplied (Figure 11-4). In using this method, platoons, sections, or individual vehicles enter the resupply point following a one-way traffic flow. Only vehicles requiring immediate maintenance stop at the maintenance holding area. Vehicles move through each supply location, with squads and crews rotating individually to eat, pick up mail and sundries, and refill or exchange water cans. When all platoon vehicles, squads, and crews have completed resupply, they move to a holding area where, time permitting, the platoon leader and PSG conduct a pre-combat inspection.

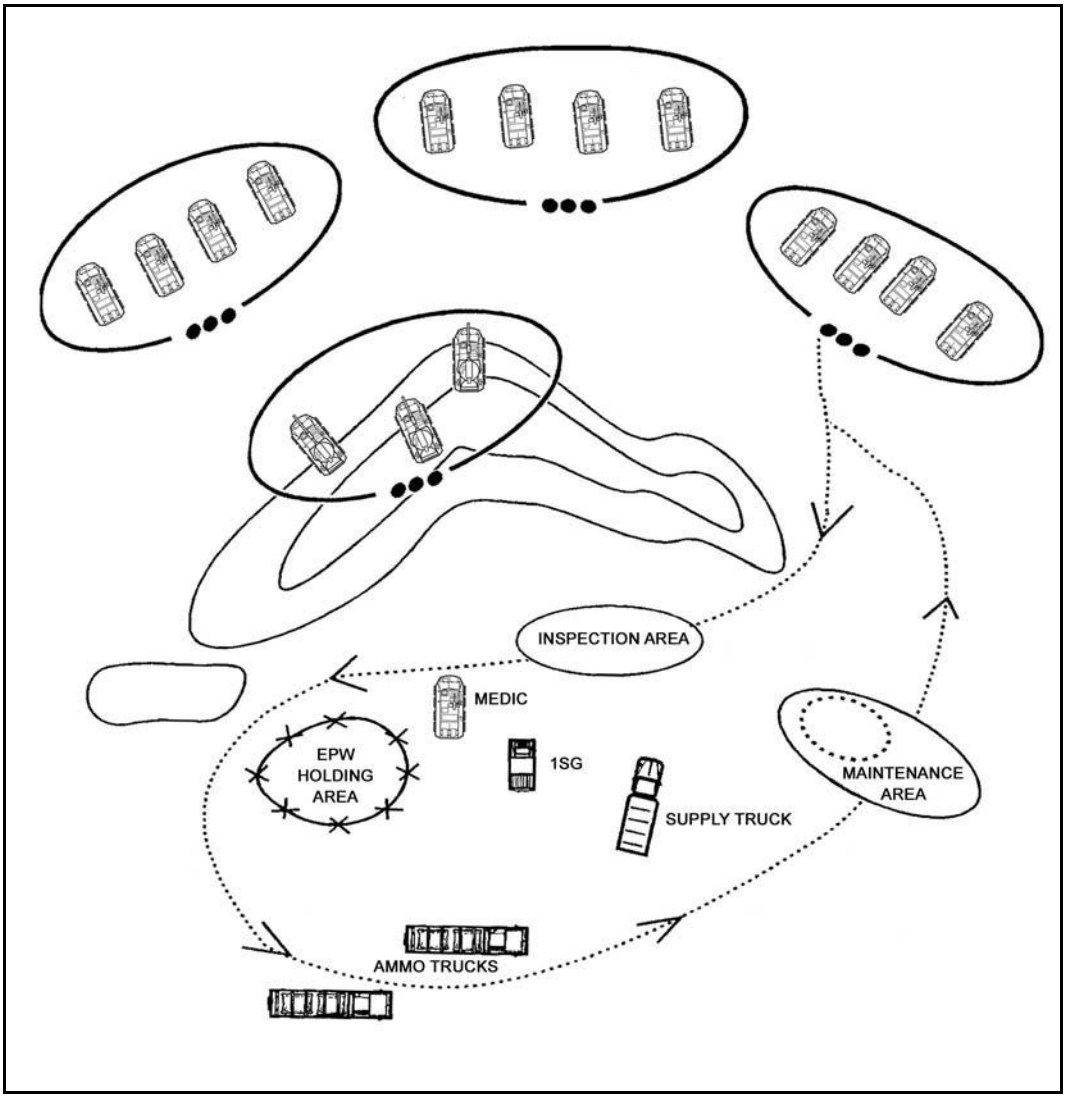


Figure 11-4. Service station resupply method.

(2) ***Tailgate Resupply.*** The tailgate method of resupply is normally used only in assembly areas. Vehicles remain in their vehicle positions or back out a short distance to allow trucks carrying supplies to reach them. Squads, fire teams, machine gun teams, or individual vehicle crews rotate through the feeding area, pick up mail and sundries, and fill or exchange water cans. Any EPWs are centralized and guarded by company security teams. Human remains and their personal effects, are brought to the holding area where they are secured by the company supply sergeant (Figure 11-5).

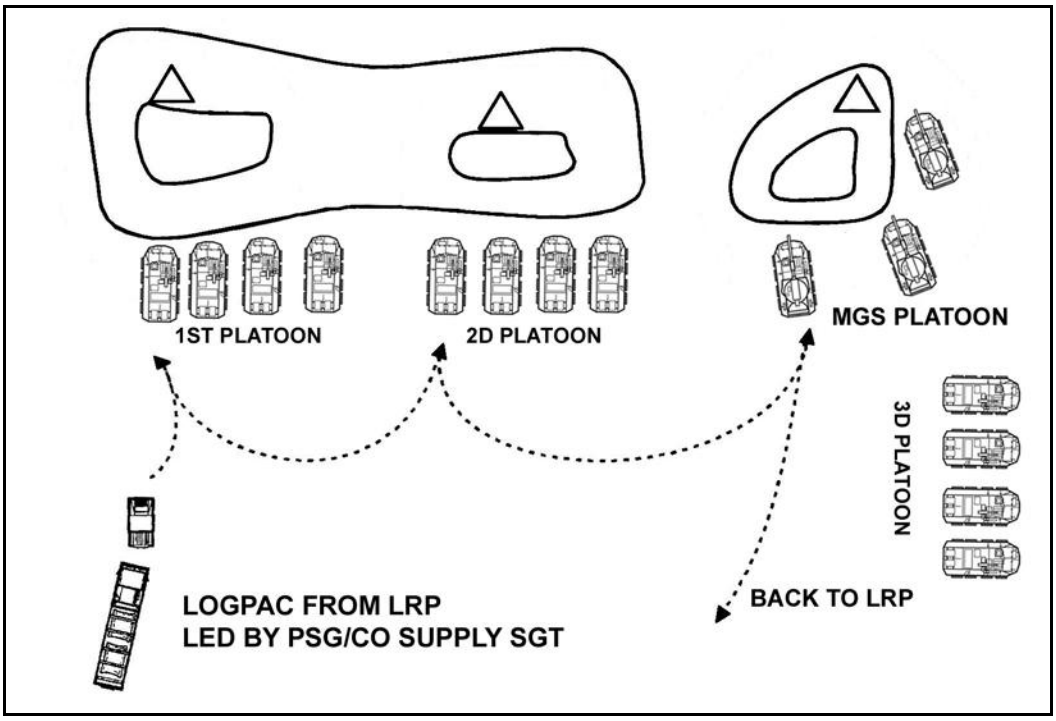


Figure 11-5. Tailgate resupply method.

11-18. EMERGENCY RESUPPLY

Occasionally (normally during combat operations), the company may have such an urgent need for resupply that it cannot wait for a routine LOGPAC. Emergency resupply may involve Classes III, V, and VIII, as well as NBC equipment and, on rare occasions, Class I. The SBCT battalion usually uses BSB supply support platoon and HHC medical assets to conduct emergency resupply of the company. Emergency resupply can be conducted using either the service station or tailgate method, although procedures may have to be adjusted when the company is in contact with the enemy. In the service station method, individual vehicles pull back during a lull in combat on order of the company commander or platoon leader; they conduct resupply and then return to the fight. With tailgate resupply, the company brings limited supplies forward to the closest concealed position behind each vehicle or element.

11-19. PRESTOCK OPERATIONS

Prestock resupply, also known as pre-positioning or cache, is most often required in defensive operations. Normally only Class V items are pre-positioned. Class III supplies can be pre-positioned, but this requires that company vehicles refuel before moving into fighting

positions during initial occupation of the BP or to move out of their fighting positions to conduct refueling operations at the rear of the BP. Prestock operations must be carefully planned and executed at every level. All leaders, down to vehicle commanders and squad leaders, must know the exact locations of prestock sites, which they verify during reconnaissance or rehearsals. The SBCT infantry company must take steps to ensure survivability of the prestock supplies. These measures include digging in prestock positions and selecting covered and concealed positions. The company commander must also have a plan to remove or destroy pre-positioned supplies to prevent the enemy from capturing them.

11-20. COMPANY RESUPPLY REQUIREMENTS

Company resupply is mainly a "push" system. This means the company receives a standard package of supplies from battalion based on past usage factors and planning estimates.

a. The SBCT battalion S4 plans the contents of a LOGPAC. The supplies are normally organized and assembled in the BSA by the BSB supply support platoon leader in coordination with the company supply sergeant. The LOGPAC should, if possible, provide all supplies, equipment, and personnel needed to sustain the company for the next 24 hours or until the next scheduled LOGPAC delivery.

b. Adjustments to the LOGPAC are sent to the battalion S4, who is located in the combat trains CP. These adjustments may be sent over the battalion A/L net, through the company supply sergeant, or by a company messenger. When using a battalion A/L net that is not secure, encode reports using SOI.

c. Company status reports often translate into supply requests or they provide information to allow the battalion S4 to anticipate company needs. An example is the personnel daily summary, which is sent to the battalion S1. It provides the number of personnel in the field, which the battalion S4 can use to plan Class I resupply.

d. The supply sergeant is responsible for non-BSB actions (for example, personnel and administrative actions) and for delivering them to the company.

11-21. COMPANY RESUPPLY TECHNIQUES

Company resupply techniques are those methods of employing company assets (personnel and equipment) to effect resupply or redistribution of supplies with subordinate elements. These techniques are independent from the methods in which the company receives supplies from higher headquarters; they are solely concerned with distribution of supplies to the platoons and sections. There are three company resupply techniques: in position, out of position, and pre-position.

a. **In Position.** The company executes in-position resupply by moving the required supplies or equipment forward while the platoons remain in their fighting positions. This technique is used when it is essential to maintain combat power forward (during contact or when contact is imminent) or when the company is dispersed over a wide area. If vehicles are not able to move near the platoons because of enemy fire, some platoon members may have to assist resupply personnel in moving supplies and equipment forward.

b. **Out of Position.** The company executes out-of-position resupply by establishing a resupply point in a covered and concealed position to the rear of a platoon position and directing platoons to move from their fighting positions to the resupply point, pick up supplies, and move back to their fighting positions. This technique is used when the

situation does not necessitate all combat power being forward (contact is not likely). Company SOPs establish whether all or part of the platoon moves to resupply at one time. A variation of this technique would be to establish a resupply point for each platoon and pre-position the LOGPAC.

c. **Pre-Position.** The company pre-positions supplies and equipment along the route to or at the location to which the platoons are moving and directs the platoons to these locations. The supplies or equipment may be uploaded on a vehicle or on the ground, secured or unsecured, concealed or in the open. The factors of METT-TC determine exactly what measures are required. This technique is most often used during defensive operations when supplies are positioned in subsequent defensive positions.

d. **Caches.** A cache is a pre-positioned and concealed supply point. It can be used in any operation. Caches are an excellent tool for reducing the soldier's load and can be set up for a specific mission or as a contingency measure. Cache sites have the same characteristics as an ORP or patrol base, with the supplies concealed above or below ground. An aboveground cache is easier to get to but is more likely to be discovered by the enemy, civilians, or animals. There is always a security risk when returning to a cache. A cache site should be observed for signs of enemy presence and secured before being used; it may have been booby-trapped and may be under enemy observation.

(1) In the offense, advance elements may set up a cache along the intended route of advance to the objective. Caches may also be set up in-zone to support continuous operations without allowing the enemy to locate the company through air or ground resupply. Soldier's load considerations may limit the size of caches. Do not let the cache activities jeopardize the offensive mission. In some cases, special forces, allied forces, or partisans may set up caches.

(2) In the defense, a defending unit may set up caches throughout the area of operations during the preparation phase. A cache should also be in each alternate or subsequent position throughout the depth of the defense sector. During stay-behind operations, or in an area defense on a fluid battlefield where the enemy is all around, caches may be the only source of supply for extended periods.

e. **Security.** While these techniques are used in both offensive and defensive operations, the transfer of supplies to the company is usually conducted from a defensive posture. As such, the security considerations for a resupply operation are like those for a perimeter defense.

11-22. SUPPLY CONSIDERATIONS

The techniques described in the preceding paragraphs are the normal methods for resupply within the company. However, a basic understanding of nonstandard techniques, different modes of delivery, and specific supply issues is also required for the successful execution of the sustainment function.

a. **Foraging and Scavenging.** Foraging and scavenging are used infrequently and only under extreme conditions. Foraging is the gathering of supplies and equipment necessary to sustain basic needs (food, water, shelter, and so forth) from within the area of operations. Scavenging is the gathering of supplies or equipment (friendly or enemy) from within the area of operations to help the user accomplish his military mission. Leaders must protect their soldiers by determining whether the food or water is safe or whether the equipment is booby-trapped (FM 1-04.10 [FM 27-10]).

b. **Aerial Resupply.** In using aerial resupply, the SBCT infantry company commander must consider the threat's ability to locate his unit by observing the aircraft. Unless conducting the resupply in an area under friendly control and away from direct enemy observation (reverse slope of a defensive position with recon well forward), locate the drop zone/landing zone (DZ/LZ) away from the main unit in an area that can be defended for a short time. The delivered supplies are immediately transported away from the DZ/LZ. The SBCT has no capability to configure loads for packaging airloads.

c. **Cross-Leveling.** Cross-leveling is simply a redistribution of supplies throughout the unit. Usually done automatically between platoons and squads after every engagement, the company may cross-level supplies between platoons when resupply cannot be effected. In some instances, supplies may not be evenly redistributed. For example, during preparation for an assault of an enemy trench system, the platoon with the task of support by fire may be required to give its hand grenades to the platoon with the task of clearing the trench.

d. **Backhauling.** Backhauling is a method used to make the most use of vehicular or manpack capabilities moving rearward. Backhauling returns supplies, equipment, or HAZMAT to the rear for disposition. Backhauling is also a means for nonstandard evacuation.

e. **Water.** Ensuring that soldiers receive and drink enough water is one of the prime CSS and leadership functions at all levels in the company chain of command. Even in cold areas, everyone needs to drink at least two quarts of water a day to maintain efficiency. Soldiers must drink water at an increased rate in a combat environment.

(1) Water is delivered to the unit under company or battalion control in 5-gallon cans, bottled water, water trailers, or collapsible containers. When a centralized feeding area is established, a water point is set up in the mess area and each soldier fills his canteen as he goes through. When the company distributes rations, it can resupply water either by collecting and filling empty canteens or by distributing water cans to the platoons.

(2) Water is habitually included in LOGPACs. The ability of the command to supply water is limited by the ability of the BSB’s water section to purify, store, and distribute it. The logistics system may not always be able to meet unit needs, particularly during decentralized operations. In most environments, water is available from natural sources. Soldiers should be trained to find, treat (chemically or using field expedients), and use natural water sources. See FM 3-05.70 (21-76) for ways the unit can supply its own water if necessary.

(3) When water is not scarce, leaders must urge soldiers to drink water even when they are not thirsty. The body's thirst mechanism does not keep pace with the loss of water through normal daily activity. The rate at which dehydration occurs depends on the weather conditions and the level of physical exertion.

(4) If water is in short supply, be sparing in its use for hygiene purposes. Water used for coffee or tea may be counterproductive since both increase the flow of urine. Soups, however, are an efficient means of getting both water and nutrition when water is scarce. This is especially true in cold weather when heated food is desirable. When in short supply, water should not be used to heat MREs. A centralized heating point can be used to conserve water yet provide warmed MREs.

11-23. TRANSPORTATION

Although an SBCT infantry company has organic transportation, movement of supplies, equipment, and personnel with the limited vehicle assets available requires careful planning and execution. Leaders must ensure that drivers know where they are going and how to get there. Land navigation training, marked routes, and strip maps referenced to landmarks are all ways to keep drivers from getting lost. SBCT infantry company personnel must know how to select PZs and LZs and receive aerial resupply (see FM 3-97.4[FM 90-4]).

Section VI. MAINTENANCE OPERATIONS

The maintenance of weapons and equipment is continuous. Every soldier must know how to maintain his weapon and equipment in accordance with the related technical manual. The commander, XO, and 1SG must understand maintenance for every piece of equipment in the company.

11-24. SBCT MAINTENANCE CONCEPT

The SBCT maintenance concept is based upon the two-level maintenance system and centralized management. The two levels of maintenance are field and sustainment. Field maintenance is the combined organizational and direct support tasks performed by the BSB's CRT to return a piece of equipment to an operational status. Sustainment maintenance occurs at echelons above the SBCT. The BSB's forward maintenance company provides all maintenance support for the SBCT, less medical and the limited automation capability, which is integrated into the SBCT's S6 sections and the signal company. The BSB may augment its capability with contractor maintenance support. Centralized management of all field maintenance by the BSB allows the infantry company commander to focus on PMCS to keep his company's weapons systems operational.

11-25. MAINTENANCE REQUIREMENTS

Proper maintenance is the key to keeping vehicles, equipment, and other materials in serviceable condition. It is a continuous process that starts with preventive measures taken by each vehicle crew and continues through repair and recovery efforts by maintenance personnel. It includes the functions of inspecting, testing, servicing, repairing, requisitioning, recovering, and evacuating equipment.

a. The unit SOP should detail when maintenance is performed (at least once a day in the field), to what standards, and who inspects it. The squad leader is most often the one who inspects maintenance work, with the platoon sergeant, platoon leader, 1SG, XO, and commander conducting spot-checks. One technique is for each to spot-check a different platoon; another is for each to check a single type of weapon or piece of equipment in all platoons daily. These instructions must be integrated into the SOP for patrol bases, assembly areas, defenses, and reorganization to ensure that maintenance is done without jeopardizing unit security and to make it a habit for the soldiers.

b. In addition to operator maintenance, selected soldiers are trained to perform limited maintenance on damaged weapons and battle damage assessment and repair (BDAR).

c. Inoperative equipment is fixed as far forward as possible. When a piece of equipment is damaged, it should be inspected to see if it can be repaired on the spot. The company armorer keeps a small-arms repair kit in the company trains or on the dedicated company vehicle. If equipment cannot be repaired forward, it is evacuated immediately or

returned with a LOGPAC. Even if the item cannot be evacuated at once, the CSS system is alerted to prepare for repair or replacement. If a replacement is available (from an evacuated soldier or inoperative equipment), it is sent forward. If not, the leader must work around it by prioritizing the use of remaining equipment (for example, using a squad radio for the company FM command net if the platoon radio is broken).

d. Maintenance applies to all equipment. Items such as magazines, ammunition, and batteries are also maintained and inspected. While test firing in an assembly area, mark the magazines of weapons that have stoppages. If a magazine is marked more than twice, the magazine may be causing the stoppages. Inspect the ammunition belts for crew-served weapons along with the weapons. Dirty or corroded ammunition may also cause weapon malfunctions.

11-26. COMPANY ROLE

Company maintenance functions begin with PMCS, a daily crew responsibility, and crew-level preparation of the appropriate equipment inspection and maintenance forms (DA Form 2404 or 5988). These forms are the primary means through which the company obtains maintenance support or repair parts. The forms follow a pathway, described in the following paragraphs, from crew level to the BSA and back. Per unit SOP, the company XO or 1SG supervises the "flow" of these critical maintenance documents and parts.

a. Squad leaders or vehicle commanders collect the maintenance forms each day and send them via FBCB2 or give them to the PSG, who consolidates the forms for the platoon. The PSG forwards an electronic version or gives a hard copy of the forms to the XO or 1SG, who reviews and verifies problems and deficiencies and requests parts needed for maintenance and repairs. The electronic versions of the forms are consolidated at company level and then transmitted to the battalion and its supporting CRT. During the next LOGPAC operation, the completed hard copy forms are returned to the CRT to document completion of the repair.

b. In the BSA, the required repair parts are packaged for delivery during the next scheduled resupply or through emergency resupply means.

c. The individual soldier or vehicle crew conducts initial maintenance, repair, and recovery actions on site. Once it is determined that the crew cannot repair or recover the vehicle or equipment, the platoon contacts the XO or 1SG. If additional assistance is needed, the 1SG requests it from the SBCT battalion S4. The battalion S4 will notify the CRT supporting the battalion to repair, classify, and coordinate evacuation, if required. The CRT will assess the damaged or broken equipment and make necessary repairs to return the piece of equipment to fully mission-capable or mission-capable status, if appropriate.

11-27. DESTRUCTION

When a vehicle or piece of equipment cannot be recovered or is damaged beyond repair, the platoon reports the situation to the SBCT infantry company commander. The commander gives permission for destruction of the materiel if that is the only way to prevent enemy capture. Crewmen remove all digital equipment, radios, crew-served weapons, ammunition, personal items, and other serviceable items and parts; they also take all classified materials or paperwork that could be of intelligence value to the enemy. The platoon then destroys the vehicle or equipment using procedures specified in the company SOP.

Section VII. HEALTH SERVICE SUPPORT

Effective, timely medical care is an essential factor in sustaining the company's combat power during continuous operations. The company commander must ensure that the company's leaders and its medical personnel know how to keep soldiers healthy, how to save their lives if they are wounded or injured, and how to make them well once injury or illness occurs.

11-28. HEALTH AND HYGIENE

The company commander and all leaders, in conjunction with the company senior trauma specialist and field sanitation team, must emphasize and enforce high standards of health and hygiene at all times. This "preventive medicine" approach should cover all aspects of the soldier's health and well being, including the following:

- Daily shaving to ensure proper fit of the protective mask.
- Regular bathing and changing of clothes.
- Prevention of weather-related problems. These include cold injuries such as frostbite, trench foot, and immersion foot, and heat injuries like heat exhaustion and heat stroke. Soldiers must understand the effects of conditions such as sunburn and wind-chill.
- Prevention of diseases. Insect-borne diseases such as malaria and Lyme disease, and diarrheal diseases can be prevented with effective field sanitation measures, including unit waste control, water purification, rodent control, and use of insect repellents.
- Combat operational stress control, battle fatigue prevention, and strict implementation of the unit sleep plan.

11-29. SOLDIERS WOUNDED IN ACTION

Care of wounded or injured soldiers during combat operations is a continuous, progressive operation that occurs in a series of separate but interlocking stages. It involves personnel, equipment, and facilities at virtually every level of the organization. The normal flow of medical treatment for combat casualties is from the combat lifesaver to the company senior trauma specialist at the CCP to medics at the BAS. In addition, company leaders play an important role in obtaining and providing medical services for their wounded in action (WIA). The following paragraphs discuss the individual responsibilities of company personnel in this process.

a. **Combat Lifesaver.** The combat lifesaver (CLS) is almost always the first person on the scene to begin the process of providing enhanced first aid to the wounded and injured personnel. The CLS is a non-medical soldier trained to provide advanced first aid/lifesaving procedures beyond the level of self-aid or buddy aid. The CLS is not intended to take the place of medical personnel but to slow deterioration of a wounded soldier’s condition until medical personnel arrive. Each certified CLS will be issued a CLS aid bag. Whenever possible, the company commander should ensure that there is at least one combat lifesaver in each fire team or at least one on each vehicle at all times.

b. **Vehicle Commander.** The vehicle commander is responsible for ensuring that wounded or injured crewmen receive immediate first aid and that the commander is informed of casualties. He coordinates with the 1SG and company senior trauma specialist for ground evacuation. The vehicle commander ensures that casualty feeder (DA Form

1156) and witness statement (DA Form 1155) forms are completed and routed to the proper channels. (The casualty feeder card stays with the wounded soldier; witness statements are given to the 1SG.)

c. **Senior Trauma Specialist**. The senior trauma specialist is both the company's primary medical treatment practitioner and the supervisor of all battlefield medical operations. The latter role encompasses numerous responsibilities. The senior trauma specialist works closely with the company commander to ensure all members of the company understand what to do to provide and obtain medical treatment in combat situations. He oversees the training of combat lifesavers. Once combat begins, he will manage the company CCP, provide medical treatment, and prepare patients for MEDEVAC. He assists the vehicle commanders and the 1SG in arranging casualty evacuation. The senior trauma specialist is also responsible for monitoring the vital paperwork that is part of the medical treatment and evacuation process:

(1) He ensures that the casualty feeder report remains with each casualty until the soldier reaches the SBCT infantry battalion main aid station or field aid station.

(2) If a soldier's remains cannot be recovered, the senior trauma specialist ensures that the crew completes DA Form 1155 (witness statement) as quickly as possible and ensures that the form is given to the 1SG for processing.

NOTE: DA Form 1156 is collected at the aid station by designated medical personnel; it is forwarded to the S1 section for further processing through administrative channels in the SBCT battalion field trains.

d. **First Sergeant.** The 1SG supervises and coordinates casualty operations, collects witness statements and submits them to the battalion S1, and submits the battle loss report to the SBCT battalion TOC. Perhaps his most important duty is managing the company's personnel status during combat operations. As necessary, he directs cross leveling among platoons and vehicle crews to alleviate personnel shortages.

e. **Commander.** The company commander has overall responsibility for medical services. His primary task is to position medical personnel at the proper point on the battlefield to treat casualties or to evacuate those casualties properly. The company commander designates the location for the company's CCP and ensures that all vehicle commanders record the location on appropriate overlays. He also develops and implements appropriate SOPs for casualty evacuation. An example is standardized vehicle markings based on the severity of casualties carried on particular vehicles.

11-30. CASUALTY EVACUATION

Effective casualty evacuation provides a major increase in the morale of a unit. Casualties are cared for at the point of injury (or under nearby cover and concealment) and receive self-aid/buddy-aid, advanced first aid from the combat lifesaver, or emergency medical treatment from the trauma specialist (company or platoon medic).

a. During the fight, casualties should remain under cover where they received initial treatment (self-aid or buddy-aid). As soon as the situation allows, casualties are moved to the platoon CCP. From the platoon area, casualties are normally evacuated to the company CCP and then back to the BAS, which is designated by the company commander in the OPORD. The unit SOP should address this activity, to include the marking of

casualties during limited visibility operations. Small, standard, or IR chemical lights work well for this purpose. Once the casualties are collected, evaluated, and treated, they are prioritized IAW FM 8-10-6 for evacuation back to the company CCP. Once they arrive at the company CCP, the above process is repeated while awaiting their evacuation back to the BAS.

b. An effective technique, particularly during an attack, is to task-organize a logistics team under the 1SG. These soldiers carry additional ammunition forward to the platoons and evacuate casualties to either the company or the battalion CCP. The leader determines the size of the team during his estimate.

c. When the company is widely dispersed, the casualties may be evacuated directly from the platoon CCP by vehicle or helicopter. Often, helicopter evacuation is restricted due to the enemy ADA threat. In some cases, the casualties must be moved to the company CCP before evacuation. When the battalion's organic ambulances are not enough to move the wounded, unit leaders may direct supply vehicles to "backhaul" non-urgent casualties to the battalion aid station after supplies are delivered. In other cases, the platoon sergeant may direct platoon litter teams to carry the casualties to the rear.

d. Leaders must minimize the number of soldiers required to evacuate casualties. Casualties with minor wounds can walk or even assist with carrying the more seriously wounded. Soldiers can make field-expedient litters by cutting small trees and putting the poles through the sleeves of buttoned BDU blouses. A travois, or skid, may be used for casualty evacuation. This is a type of litter on which wounded can be strapped; it can be pulled by one person. It can be locally fabricated from durable, rollable plastic on which tie-down straps are fastened. In rough terrain (or on patrols), casualties may be evacuated to the battalion aid station by litter teams, carried with the unit until transportation can reach them, or left at a position and picked up later.

e. Unit SOPs and OPORDs must address casualty treatment and evacuation in detail. They should cover the duties and responsibilities of key personnel, the evacuation of chemically contaminated casualties (on separate routes from noncontaminated casualties), and the priority for manning key weapons and positions. They should specify preferred and alternate methods of evacuation and make provisions for retrieving and safeguarding the weapons, ammunition, and equipment of casualties. Slightly wounded personnel are treated and returned to duty by the lowest echelon possible. Platoon aidmen evaluate sick soldiers and either treat or evacuate them as necessary. Casualty evacuation should be rehearsed like any other critical part of an operation.

f. A casualty report, DA Form 1156 (Figure 11-6, page 11-27), is filled out when a casualty occurs or as soon as the tactical situation permits. This is usually done by the soldier's squad leader and turned in to the platoon sergeant, who forwards it to the 1SG. A brief description of how the casualty occurred (to include the place, time, and activity being performed) and who or what inflicted the wound is included. If the squad leader does not have personal knowledge of how the casualty occurred, he gets this information from any soldier who does have the knowledge. Pocketsize witness statements, DA Form 1155 (Figure 11-7, page 11-28), are used to report missing or captured soldiers or when remains are not recovered. The soldier with the most knowledge of the incident should complete the witness statement. This information is used to inform the soldier's next of kin and to provide a statistical base for analysis of friendly or enemy tactics. Once the casualty’s medical

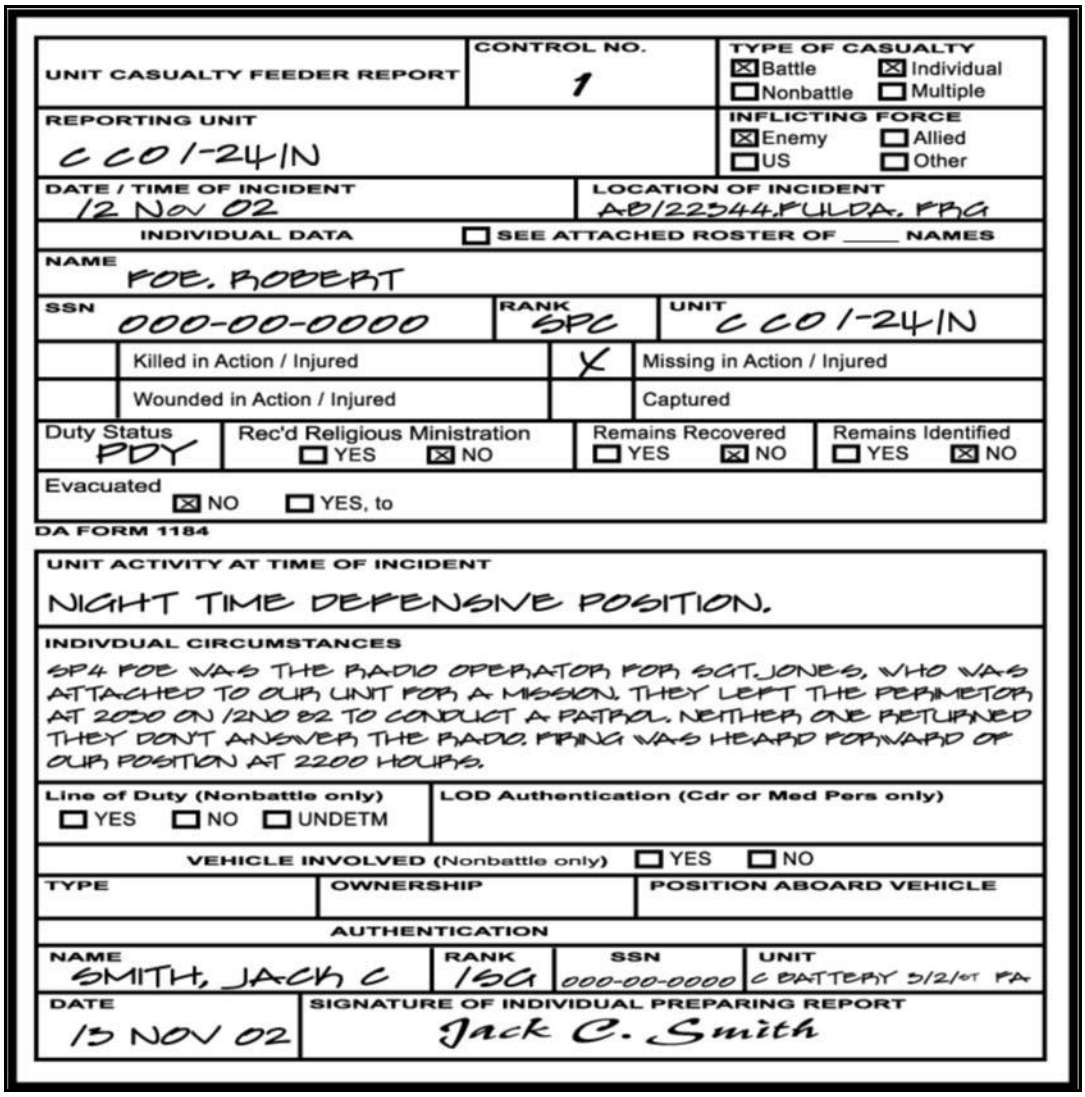
condition has stabilized, the company commander may write a letter to the soldier's next of kin.

NOTE: Before casualties are evacuated to the CCP or beyond, leaders should remove all key operational items and equipment, including SOIs, maps, position location devices, and laser pointers. Every unit should establish an SOP for handling the weapons and ammunition of its WIAs. Protective masks must stay with the individual.

g. At the CCP, the senior trauma specialist conducts triage of all casualties, takes the necessary steps to stabilize their condition, and initiates the process of evacuating them to the rear for further treatment. He assists the PSG and vehicle commanders in arranging evacuation via ground or air ambulance, or by non-standard means.

h. When possible, the HHC medical platoon ambulances provide evacuation and en route care from the soldier's point of injury or the company's CCP to the BAS. The ambulance team supporting the company works in coordination with the senior trauma specialist supporting the platoons. When a casualty occurs in a fighting vehicle, the evacuation team will move as close to the vehicle as possible, making full use of cover, concealment, and defilade. Assisted, if possible by the vehicle's crew, they will extract the casualty from the vehicle and administer emergency medical treatment. In mass casualty situations, non-medical vehicles may be used to assist in casualty evacuation as directed by the infantry company commander. Plans for the use of non-medical vehicles to perform casualty evacuation should be included in the unit SOP. Ground ambulances from the BSMC or supporting corps air ambulances evacuate patients from the BAS back to the BSMC medical treatment facility (MTF) located in the BSA.

NOTE: During entry operations, air ambulances may not be available for the first 96 hours.



UNIT CASUALTY FEEDER REPORT

CONTROL NO. 1

TYPE OF CASUALTY: ☒ Battle ☒ Individual ☐ Nonbattle ☐ Multiple

REPORTING UNIT: C CO 1-24 IN

INFLICTING FORCE: ☒ Enemy ☐ Allied ☐ US ☐ Other

DATE / TIME OF INCIDENT: 12 Nov 02

LOCATION OF INCIDENT: AB1225 44, FULDA, FRG

INDIVIDUAL DATA ☐ SEE ATTACHED ROSTER OF ____ NAMES

NAME: POE, ROBERT

SSN: 000-00-0000 | RANK: SPC | UNIT: C CO 1-24 IN

	Killed in Action / Injured	X	Missing in Action / Injured
	Wounded in Action / Injured		Captured

Duty Status	Rec'd Religious Ministration	Remains Recovered	Remains Identified
PDY	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO

Evacuated ☒ NO ☐ YES, to

DA FORM 1184

UNIT ACTIVITY AT TIME OF INCIDENT

NIGHT TIME DEFENSIVE POSITION.

INDIVDUAL CIRCUMSTANCES

SP4 POE WAS THE RADIO OPERATOR FOR SGT. JONES, WHO WAS ATTACHED TO OUR UNIT FOR A MISSION. THEY LEFT THE PERIMETOR AT 2030 ON 12ND 02 TO CONDUCT A PATROL. NEITHER ONE RETURNED THEY DONT ANSWER THE RADIO. FRNG WAS HEARD FORWARD OF OUR POSITION AT 2200 HOURS.

Line of Duty (Nonbattle only) ☐ YES ☐ NO ☐ UNDETM

LOD Authentication (Cdr or Med Pers only)

VEHICLE INVOLVED (Nonbattle only) ☐ YES ☐ NO

TYPE	OWNERSHIP	POSITION ABOARD VEHICLE

AUTHENTICATION

NAME	RANK	SSN	UNIT
SMITH, JACK C	1SG	000-00-0000	C BATTERY 5/2/6T FA

DATE: 15 NOV 02

SIGNATURE OF INDIVIDUAL PREPARING REPORT: Jack C. Smith

Figure 11-6. Casualty report.

WITNESS STATEMENT ON CASUALTY INCIDENT
(AR 800-10)

CHECK APPLICABLE BOX
- ☐ Killed in Action/Dead (remains not recovered)
- ☐ Wounded in Action/Injured
- ☒ Missing in Action/Missing
- ☐ Captured

1. LAST NAME, FIRST NAME MI (of casualty)	2. SSN	3. RANK	4. SEX
POE, ROBERT		SPC	M

5. ORGANIZATION	6. DATE OF DEATH OR WHEN LAST SEEN
C CO 1-24 IN	2050, 12 NOV 02

7. GEOGRAPHICAL LOCATION OF INCIDENT (Include grid acordinates and nearby town)	9. OTHER PERSONS WHO MAY HAVE WITNESSED THIS INCIDENT OR HAVE FURTHER INFORMATION
AB 122 344 FULDA, FRG	1SG SMITH C BATTERY FA

9. CIRCUMSTANCES SURROUNDING INCIDENT (If known, include cause of death or condition when last seen, or how identified)
SP4 POE WAS THE RADIO OPERATOR FOR 2LT JONES WHO WAS ATTACHED TO OUR PLATOON FOR A MISSION.

DA FORM 1156 — REPLACES EDITION OF 1 JUN 66, WHICH WILL BE ISSUED AND USED UNTIL EXHAUSTED.

9. CIRCUMSTANCES SURROUNDING INCIDENT (Continued)
HE WENT ON PATROL WITH SGT JONES ON 12 NOV 02. HE LEFT OUR LINES AT 2050. NEITHER ONE RETURNED. THEY DONT ANSWER THE RADIO. FRNG WAS HEARD FORWARD OF OUR POSITION ABOUT 2200 HOURS.

10. NAME OF PERSON MAKING STATEMENT	11. RANK	12. SSN
Q.T. WILLIAMS	PSG	000-00-000

13. UNIT	14. DATE	15. SIGNATURE
C CO 1-24 IN	13NOV02	Q.T. Williams

Figure 11-7. Witness statement.

11-31. SOLDIERS KILLED IN ACTION

The company commander designates a location for the collection of those killed in action. Temporary remains holding areas should be established behind a natural barrier, such as a stand of trees, or shielded from the view of others by using either tents or tarpaulins. All personal effects remain with the body, but equipment and issue items become the responsibility of the vehicle commander or squad leader until they can be turned over to the 1SG or supply sergeant. As a rule, human remains should not be transported on the same vehicle as wounded soldiers. The commander sends a letter of condolence to the soldier's next of kin, normally within 48 hours of the death.

Section VIII. REORGANIZATION AND WEAPONS REPLACEMENT

To maintain effective, consistent combat power, the company must have specific plans and procedures that allow each element to quickly integrate replacement personnel and equipment. Unit SOP should define how soldiers and equipment are prepared for combat, including areas such as uploading, load plans, PCIs, and in-briefings.

11-32. REPLACEMENT AND CROSS-LEVELING OF PERSONNEL

Replacements for wounded, killed, or missing personnel are requested through the battalion S1. Returning or replacement personnel arriving with the LOGPAC should have already been issued all TA-50 equipment, MOPP gear, and other items, including their personal weapons. Within the company, each platoon leader cross-levels personnel among his crews, with the 1SG controlling cross leveling from platoon to platoon. Soldiers from disabled or destroyed vehicles are used to fill out squads and crews until replacement personnel and vehicles arrive at the company CP.

11-33. PERSONNEL REPLACEMENT PROCEDURES

Integrating replacements into a company is important. A new arrival on the battlefield may be scared and disoriented as well as unfamiliar with local SOPs and the theater of operations. The following procedures help integrate new arrivals into a company.

a. The company commander meets them and welcomes them to the unit. This is normally a brief interview. The company commander must have an SOP for reception and integration of newly assigned soldiers.

b. The platoon leader and platoon sergeant welcome them to the unit, inform them of unit standards, and introduce them to their squad leaders.

c. The squad leader introduces them to the squad and briefs them on duty positions. He also ensures that each replacement has a serviceable, zeroed weapon, as well as ammunition, MOPP gear, and other essential equipment. The in-briefing should cover the squad and platoon's recent and planned activities.

d. The new arrival is told about important SOPs and special information concerning the area of operations. He may be given a form letter to send to his next of kin. The letter should tell them where to mail letters and packages, tell them how to use the Red Cross in emergencies, and introduce them to the chain of command.

11-34. REPLACEMENT AND SALVAGING OF EQUIPMENT

Lost, damaged, or destroyed equipment is replaced through normal supply channels and brought forward with the LOGPAC. When vehicles are evacuated to the rear for extended periods, the company commander coordinates with the battalion S4 to have crews remove any serviceable equipment or parts for use on other company vehicles.

11-35. WEAPONS SYSTEM REPLACEMENT OPERATIONS

Weapons system replacement operations (WSRO) are conducted to provide units with fully operational, ready-to-fight replacement weapons systems; they cover both vehicle and crew-served systems. Echelons above the SBCT will provide replacement weapons systems to battalions based on SBCT priorities. Before these weapons systems are brought forward for delivery to the company, the higher headquarters supervises the completion of all necessary pre-combat checks.

APPENDIX A

JAVELIN EMPLOYMENT

The Javelin provides accurate, medium-range antiarmor fire for the SBCT infantry company. The Javelin is used in offensive operations to provide precision, direct fires that suppress or destroy enemy armored vehicles and destroy fortifications. In defensive operations, the Javelin may be used to overwatch obstacles, destroy armored vehicles, and force the enemy commander to dismount prematurely, exposing his Infantry to small arms and indirect fires. The Javelin can destroy targets from medium ranges (65 to 2,000 meters), including helicopters and fortified positions. The SBCT infantry leader also can use the Javelin's imaging infrared (I^2R) *sight capability to conduct surveillance of critical avenues of approach in all types of weather. The Javelin may also be used to engage bunkers, buildings, and other fortified targets commonly found during combat in built-up areas.*

A-1. THE JAVELIN WEAPON SYSTEM

The Javelin is a dual-mode (top attack or direct attack), man-portable antitank missile with an increased capability to engage and defeat tanks and other armored vehicles (Table A-1). The Javelin has a missile contained in a disposable launch tube/container and a reusable tracker; it is a fire-and-forget weapon system. Additionally, the Javelin has a soft launch that significantly reduces the visual and acoustical signature of the missile.

Type System:	Fire and Forget
Carry Weight (Total):	49.2 lb (day & night)
Command Launch Unit:	14.1 lb (day & night)
Missile (w/launch tube):	35.2 lb
Crew:	Man portable
Ready to Fire:	Less than 30 sec.
Reload Time:	Less than 20 sec.
Method of Attack:	Top attack or direct attack (top attack is normal)
Range:	Top-attack mode: 150m-2000m Direct-attack mode: 65m-2000m
Fighting Position Restrictions:	1m x 2m, ventilation is recommended
Guidance System:	*Imaging Infrared or I²R*
Sights:	Integrated Day/Night sight unit
Time of Flight:	1,000m = approx. 4.6 sec 2,000m = approx. 14.5 sec
Sight Magnification:	4X day, 4X wide field of view and 9X narrow field of view

Table A-1. Javelin technical characteristics.

a. **Command Launch Unit.** The nondisposable section of the Javelin is the CLU (Figure A-1, page A-2). The night sight and day sight of the Javelin are integrated into one unit. The imaging infrared or I²R sight has a 2,000-meter range, under most conditions, which greatly increases target acquisition by the infantryman. The sight can

operate for over four hours on a single battery and requires no coolant bottles. It has a built-in test capability, which alerts the gunner if the system is not functioning properly during operation.

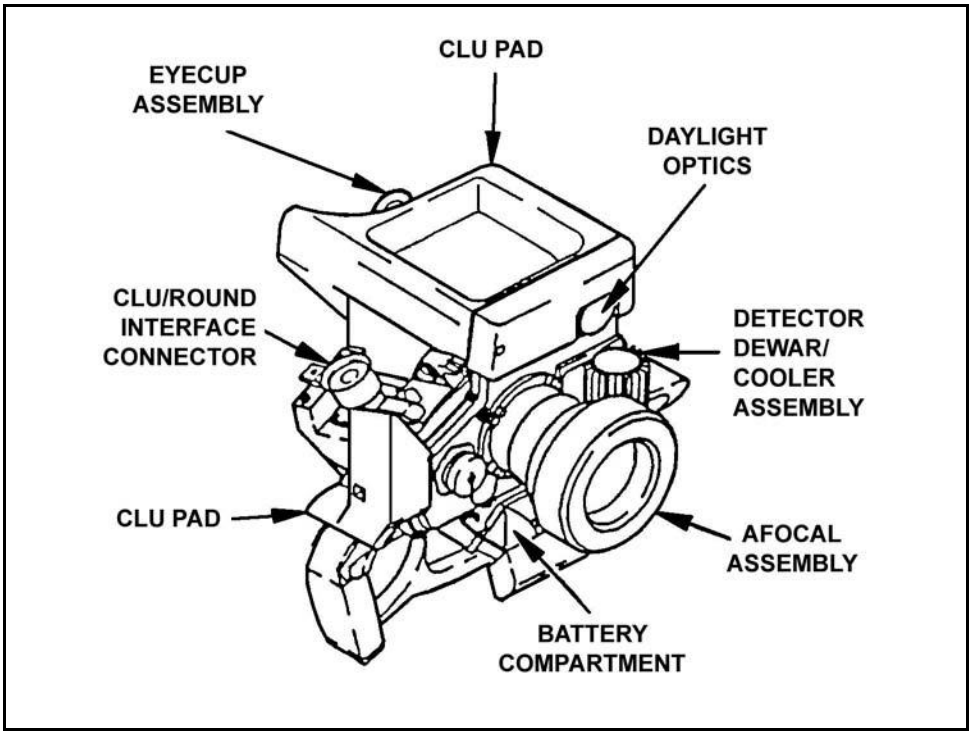


Figure A-1. Command launch unit.

b. **Missile.** The missile is contained in a disposable launch tube. It has a passive imaging infrared system, which locks on to the target before launch and is self-guiding. It uses a tandem shaped charge warhead and a two-stage solid propellant with a low signature, soft-launch motor, and a minimum-smoke flight motor. The launch tube assembly and missile is shown in Figure A-2.

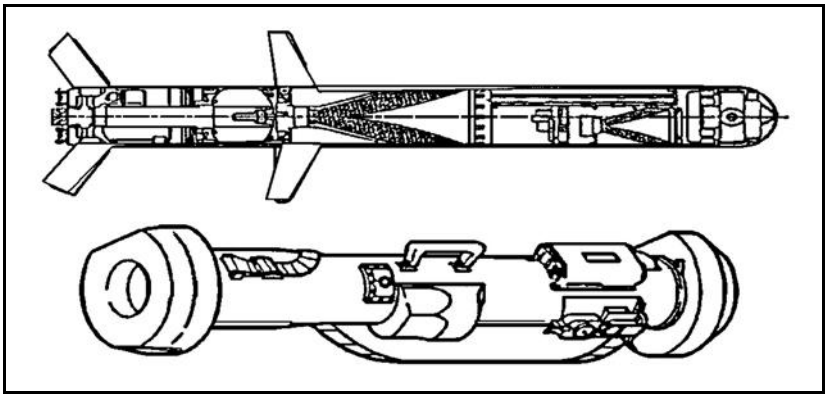


Figure A-2. Launch tube assembly and missile.

A-2. CAPABILITIES

The Javelin antitank missile has improved capabilities over the Dragon.

a. **Lethality.** The Javelin is more lethal than the Dragon. The Javelin's 2,000-meter range and its tandem warhead, which defeats all known armor, enhance the Javelin's lethality.

(1) In the top-attack mode, the missile strikes the thinner armor on the top of an armored vehicle rather than the thicker frontal and side armor plates. Top attack also prevents an enemy target from protecting itself by moving behind frontal cover. When used in urban areas or where obstacles might interfere with the top-attack flight path of the missile, the Javelin can also be fired in the direct attack mode.

(2) The fire-and-forget capability of the Javelin increases the probability of a hit. Because the gunner is no longer exposed to enemy suppressive fires while tracking the target until impact, he can use the missile's flight time to reload, in a covered and concealed position, and begin engaging another target.

b. **Survivability.** The Javelin's low launch signature decreases the enemy's ability to acquire gunners when they fire the missile. All gunner engagement tasks are accomplished before launching the missile, making time of flight irrelevant. The 2,000-meter range also places the Javelin gunner outside the armored vehicle's effective coaxial machine gun range. However, he is still within the range of the main gun.

(1) The Javelin uses a passive infrared system for target acquisition and lock-on. This means that it emits no infrared or radar beam which enemy vehicles or smart munitions can detect, further increasing the survivability of the Javelin gunner.

(2) The Javelin sight offers the SBCT infantry leader a superior observation capability as compared to the Dragon. The Javelin sight can detect targets in excess of 2,000 meters.

(3) Because of the Javelin's low backblast, it can be fired from smaller, harder to locate, better protected positions that give the gunner a greater chance of remaining undetected or, if detected, surviving any suppressive fires.

c. **Agility.** The Javelin is man-portable and relatively lightweight for an antitank missile system, which allows the system to be moved about the battlefield with relative ease. The Javelin's soft launch capability allows it to be fired from inside buildings, bunkers, and other restricted spaces with less disruption to the gunner and less signature to be observed by the enemy. Although flank shots are still the preferred method of engagement, the Javelin's low signature launch and top-attack mode make frontal and oblique engagements more effective than in the past, giving the SBCT infantry leader additional options in his antiarmor fires planning and positioning.

d. **Flexibility.** The capabilities of the Javelin give the leader more flexibility in the use and emplacement of his antiarmor systems. This new degree of flexibility challenges the leader to make a careful METT-TC analysis to ensure that he is taking full advantage of the Javelin's capabilities. The Javelin gives the leader a system that complements other antiarmor fires available, allowing him to achieve mutual support and greater overlapping fires between the systems.

A-3. LIMITATIONS

There are certain times when the Javelin system is not able to engage targets. These occur either when a target is not exposed long enough for the missile seeker to achieve proper lock on or when atmospheric conditions interfere with the seeker.

a. **Limited Visibility.** Heavy rain, smoke, fog, snow, sleet, haze, and dust are referred to as limited visibility conditions. The presence of these conditions can affect the gunner's ability to acquire and engage targets with the Javelin, especially when using the day sight of the CLU. The gunner should use the I^2R sight of the CLU to acquire targets because it provides the best target image during limited visibility conditions.

b. **Infrared Crossover.** Infrared crossover occurs at least twice in each 24-hour period when the temperatures of soil, water, concrete, and vegetation are approximately the same and the objects all emit the same amount of infrared energy. If there is little difference in the amount of infrared energy between a target and its background, then neither the Javelin CLU nor the missile seeker can see the target well, thus greatly degrading the performance of the Javelin. This situation may last as long as an hour, until either the background or the target changes temperature enough to become detectable.

c. **Time Space Factor.** Just because a target appears in the open and within range does not always mean a Javelin gunner can acquire, lock-on, fire, and hit the target. A vehicle must be exposed long enough for the gunner to identify it as a target and then to achieve target lock-on with the Javelin missile seeker. This process is not instantaneous and varies with the skill of the gunner.

A -4. EMPLOYMENT CONSIDERATIONS

The Javelin's primary role is to destroy enemy armored vehicles. When there is not an armored threat, the Javelin can be employed in a secondary role of providing fire support against point targets such as bunkers and crew-served weapons positions. In addition, the Javelin's CLU can be used alone as an aided vision device for reconnaissance, security operations, and surveillance.

a. **Mutual Support.** Javelins should be positioned so they can support other Javelins as firing pairs (Figure A-3). In terrain that has multiple narrow avenues of approach, the Javelin may be employed as a single weapon system. In open terrain, Javelins should be positioned to achieve overlapping sectors (Figure A-4). Mutual support prevents the enemy from isolating a portion of the friendly unit and then concentrating on one sector without being subjected to fire from another. If mutual support is achieved, when one Javelin is destroyed or forced to displace, the others can continue covering the assigned sector. As a rule of thumb, gunners should normally be positioned far enough apart so enemy fires directed at one cannot suppress others.

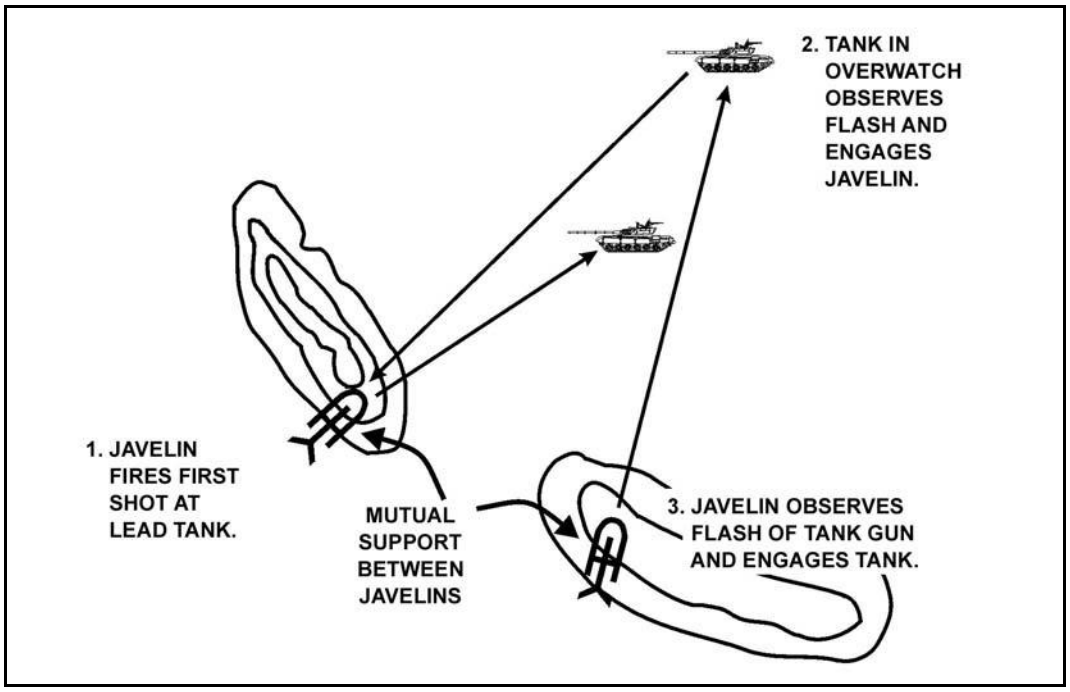

2. TANK IN OVERWATCH OBSERVES FLASH AND ENGAGES JAVELIN.
1. JAVELIN FIRES FIRST SHOT AT LEAD TANK.
MUTUAL SUPPORT BETWEEN JAVELINS
3. JAVELIN OBSERVES FLASH OF TANK GUN AND ENGAGES TANK.

Figure A-3. Employment by firing pair.

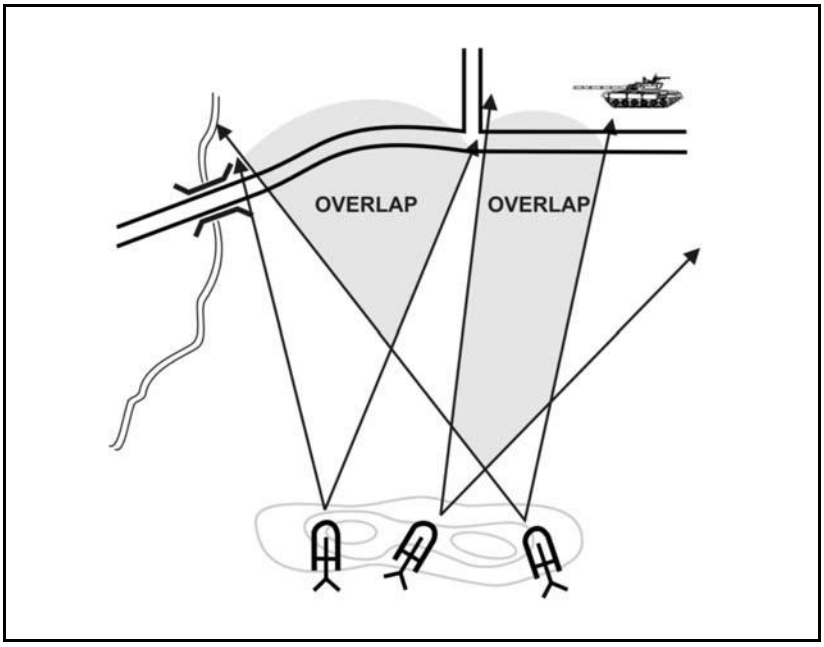


Figure A-4. Overlapping sectors of fire.

b. **Flank Shot Engagements.** Leaders should position Javelins to engage from the flank whenever possible because:

- Armored vehicles are most vulnerable from the flank.
- The focus of the crew will normally be to the front and not to the flank.
- Armored vehicles present the largest visual and infrared target from the flank.

- The vehicle's various sighting systems, laser range finder, and firepower are normally oriented to the front, not the flank.
- Armored vehicles have less armor on the sides than on the front. This is important when engaging in the direct-fire mode.

c. **Javelin Standoff Advantage.** The difference between the Javelin's maximum range and the maximum effective range of the enemy tank's coaxial machine gun (Figure A-5) creates an advantage in a standoff. The Javelin's maximum range is 2,000 meters. The maximum effective range of a T-72 coaxial machine gun is 1,000 meters. The Javelin gunner should strive to engage enemy tanks in the 1,000- to 2,000-meter range.

NOTE: Most modern tanks, as well as infantry fighting vehicles, can fire high-explosive ammunition to suppress gunners out to 4,000 meters.

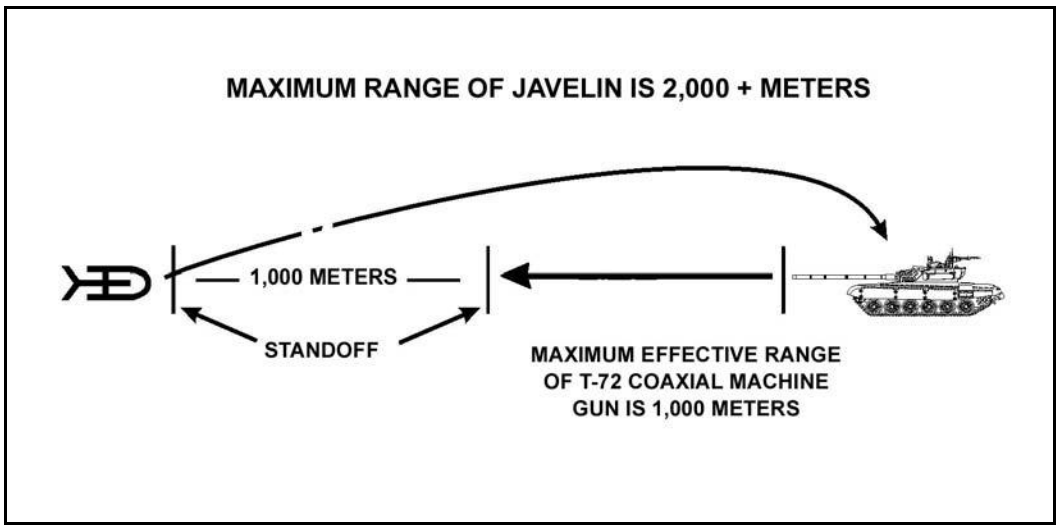


Figure A-5. Standoff range.

d. **Cover and Concealment.** Cover and concealment are critical to the survival of an antiarmor weapon system and its crew. The SBCT leader responsible for Javelin employment must analyze cover and concealment along with fields of fire and observation.

(1) ***Cover.*** Cover is protection from enemy weapons fire and may be natural or man-made. Natural cover includes reverse slopes, ravines, and hollows. Man-made cover includes fighting positions, walls, rubble, and craters.

(2) ***Concealment.*** Concealment is the ability to hide from enemy observation. Soldiers should avoid unnecessary movement, stay low and observe, and present themselves and their equipment using the lowest silhouette possible. They should alter familiar shapes by breaking up the common outlines of the position and equipment using vegetation and camouflage netting. They must pay attention to the varied colors and textures of the area to ensure the position blends in with its background. Additionally, noises, such as engines running, talking, and moving equipment, can be heard by enemy patrols and observation posts. Shiny surfaces can reflect light for great distances; therefore they must not expose anything that shines.

e. **Soldier's Load.** When employing the Javelin in the dismounted role, the soldier's load becomes important. With a total system weight of just under 50 pounds, the Javelin is heavy. Although a man-portable weapon, one soldier cannot easily carry the Javelin cross-country for extended periods. Leaders should be aware of this problem and address it as they would any other soldier's load difficulty. FM 21-18 discusses soldier's load and cross-leveling equipment during movement to reduce the burden on soldiers. Leaders should develop unit SOPs that identify and describe the details of unit equipment cross leveling.

f. **Massed Fires.** Massed fires are achieved by coordinating the total effects of the unit's combat power at the decisive place and time to gain favorable results against the enemy. The unit achieves mass through mutual fire support, detailed fire control, and fire distribution measures that synchronize all of the fires of the SBCT company's weapons systems and elements. The Javelin should always be positioned so that its fires are part of a cohesive combination including small arms, MGS, mortar and artillery, as well as the close-in fires of the SBCT platoons using their AT-4 light antiarmor weapons.

A-5. JAVELIN EMPLOYMENT DURING URBAN COMBAT

Javelins provide overwatching antitank fires during the attack of a built-up area and an extended range capability for the engagement of armor during the defense. Within built-up areas, they are best employed along major thoroughfares and from the upper stories of buildings to attain long-range fields of fire. The missile's minimum arming range and flight profile could limit firing opportunities in the confines of densely built-up areas.

a. **Restrictions.** Ground obstacles and water do not restrict the Javelin with its fire-and-forget capability. However, with its unique flight characteristics, overhead obstacles can limit its use in urban terrain. In the top-attack mode, the Javelin missile requires up to 160-plus meters of overhead clearance (Figure A-6). In the direct-attack mode, the Javelin requires up to 60-plus meters of overhead clearance (Figure A-7, page A-8). Gunners must ensure that sufficient overhead clearance is available along the missile flight path before engaging targets in an urban environment.

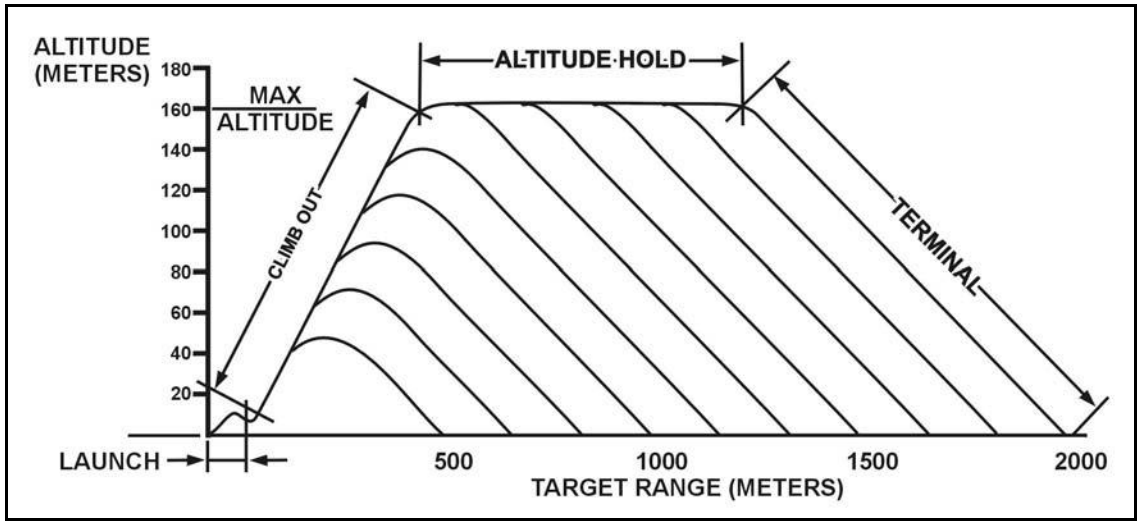


Figure A-6. Javelin flight profile in top-attack mode.

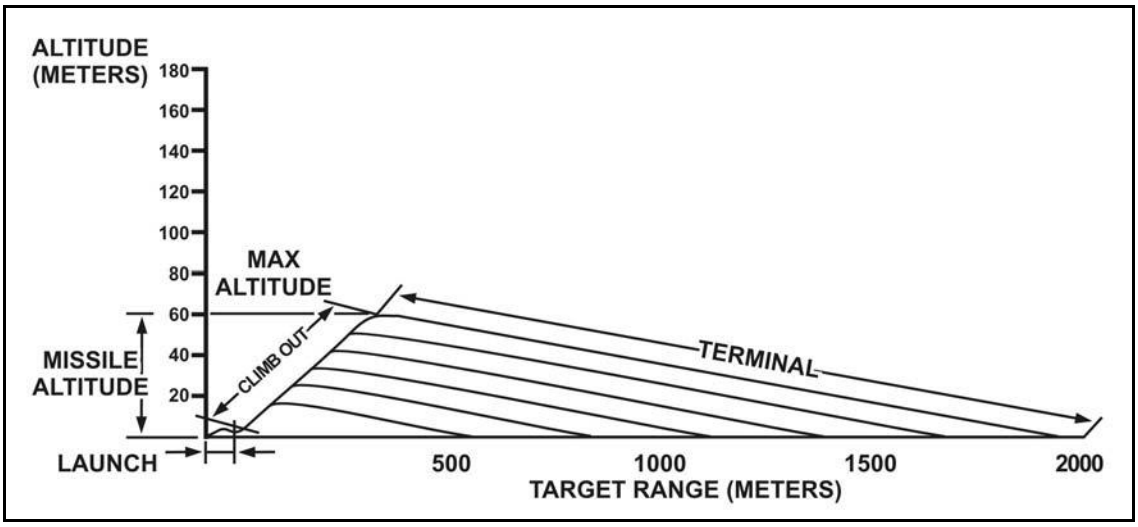


Figure A-7. Javelin flight profile in direct-attack mode.

b. **Dead Space.** The aspects of dead space that affect Javelin fires the most are arming distance and target and background temperature differences.

(1) The Javelin missile has a minimum arming window of 65 to 75 meters. Few areas in the inner city permit fires much beyond the minimum arming distance. Ground-level long-range fires down streets or rail lines and across parks or plazas are possible. The Javelin may be used effectively from the upper stories or roofs of buildings to fire into other buildings.

(2) The Javelin gunner must take into consideration the targeting dead space that is sometimes caused by the background of the target and its heat signature. When firing from the upper stories of a building towards the ground, the missile seeker sometimes cannot discriminate between the target and surrounding rubble, buildings, or paving if that background material has the same temperature as the target.

c. **Backblast.** The Javelin's soft launch capability enables the gunner to fire from within an enclosed area (Figure A-8) with a reduced danger from backblast overpressure or flying debris. Personnel within the enclosure should still wear a helmet, protective vest, ballistic eye protection, and hearing protection. To fire a Javelin from inside a room, the following safety precautions must be taken:

- Ceiling height must be at least 7 feet.
- The floor size of the room should be at least 15 feet by 12 feet.
- Window opening must be at least 5 square feet
- Door opening must be at least 20 square feet
- When launching a missile from an enclosure, allow sufficient room for the missile container to extend beyond the outermost edge of the enclosure.
- All personnel in the room must be forward of the rear of the weapon.

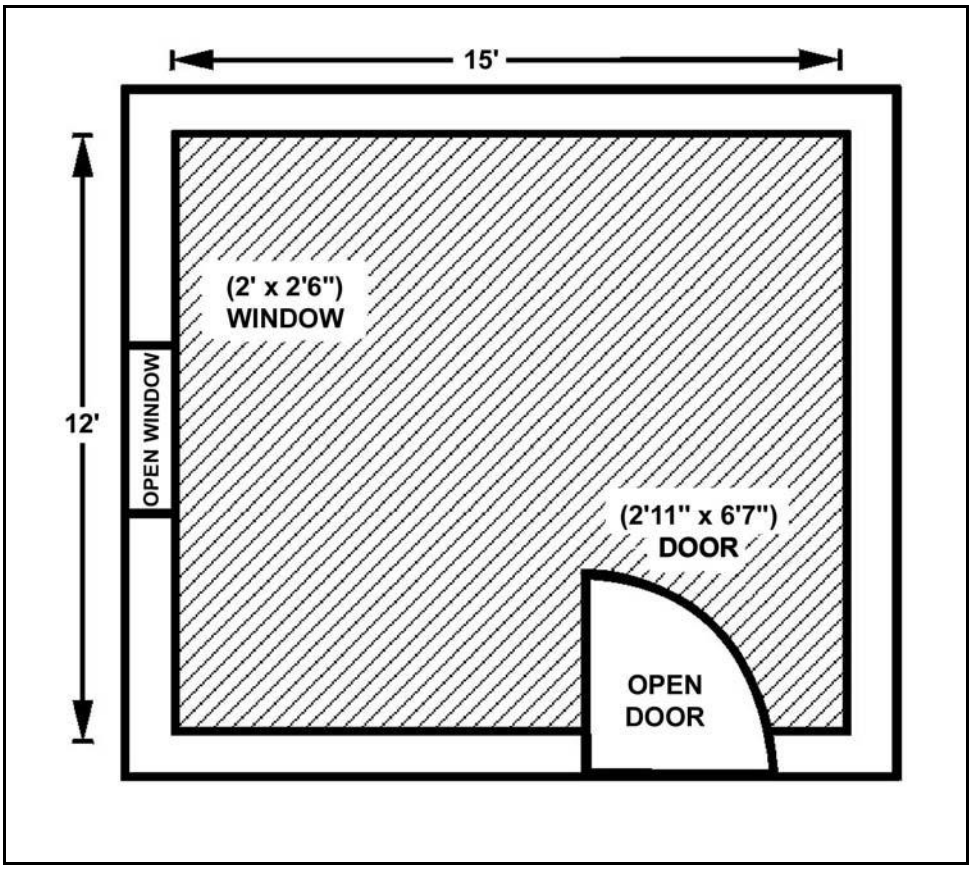


Figure A-8. Minimum room enclosure for Javelin firing.

d. **Weapon Penetration.** The warhead of the Javelin can achieve significant penetration against typical urban targets. Penetration, however, does not mean a concurrent destruction of the structural integrity of a position. When engaging a position in a building, use the direct-attack mode to hit the target. When engaging a position or bunker in the open, use either the top-attack or direct-attack mode.

A-6. JAVELIN FIRING POSITIONS

Each Javelin should have a primary firing position and at least one alternate position. Depending on the factors of METT-TC, a supplementary position may also be assigned. A Javelin firing position must allow for target engagement and provide protection for the soldiers and the weapon system. When selecting firing positions, leaders should consider the following:

- Cover to the front, flank, and overhead.
- Concealment from ground and aerial observation.
- Good observation and fields of fire.
- Covered and concealed routes to and between positions.
- Mutual support between squad positions and with other elements.
- Position below ridgelines and crests, preferably on the sides of hills.
- Avoid positions in swampy areas and very steep hillsides, as well as positions on or near prominent terrain features.

A-7. DETECT, CLASSIFY AND RECOGNIZE

US forces must engage targets quickly and efficiently to win in combat. Speed of target engagement depends on each Javelin gunner's proficiency in acquiring targets, identifying targets, and determining whether targets can be engaged. Dust and smoke make locating and identifying the enemy difficult. As the battle progresses and friendly and enemy units merge into the same maneuver area, acquiring and identifying targets become crucial tasks. Gunners in the company should be trained to acquire enemy targets that are camouflaged or partially concealed by terrain, vegetation, or smoke. They should also be trained to identify targets as friend or foe. Once soldiers know where to look, they must know how to detect enemy targets rapidly.

a. **Primary Analysis.** Because the Javelin's primary targets are armored vehicles, specifically tanks, gunners should look for terrain where these targets are most likely to appear. Understanding armor tactics and the characteristics of armor vehicles can help Javelin gunners recognize the terrain where these vehicles are most likely to be employed.

(1) ***Enemy Analysis.*** The tactics of many potential adversaries stress using speed and massive firepower to overwhelm and destroy an opposing force. This dictates a very high average daily rate of advance. To move consistently at a high rate, armored forces require firm ground to move rapidly and enough space to deploy, maneuver, and fire. High-speed avenues of approach, such as road networks, broad ridges, and flat or rolling terrain, should be observed constantly.

(2) ***Terrain and Weather Analysis.*** A detailed analysis of the terrain and weather is useful in pinpointing armored or mechanized avenues of approach and to evaluate them from the enemy's viewpoint. Some questions that the leader should ask are "How can the enemy use this terrain?" and "Where is he most likely to appear first?" Because weather significantly affects the trafficability of terrain, a ground reconnaissance is needed to obtain current, detailed information about roads, trails, manmade objects, density of trees and brush, and the seasonal conditions of streams and rivers. If a ground reconnaissance is not possible, an aerial reconnaissance should be conducted or recent aerial photographs should be used.

(3) ***Armored and Mechanized Vehicles' Mobility Characteristics.*** Javelin gunners can more easily determine where to look for enemy armored vehicles if they know the vehicles' mobility characteristics. If possible, tank and motorized rifle units will avoid terrain or obstacles that can stop or impede their movement. Terrain factors that restrict armored or mechanized vehicle mobility include:

- Slopes steeper than 30 degrees.
- Sturdy walls or embankments 3 or more feet high.
- Ditches or gullies 9 or more feet wide and 3 or more feet deep.
- Hardwood trees 10 inches or larger in diameter and 10 feet or less apart.
- Water obstacles at least 5 feet deep.
- Very swampy or very rough, rocky terrain.
- Built-up areas where vehicles are restricted to moving on confined roads, through park areas, or across sports fields.

b. **Range Estimation.** Javelin gunners do not need to know the exact range to a enemy target before engaging; they only need to know when it is in range. To speed this determination, gunners use a maximum engagement line. A Javelin maximum

engagement line is an imaginary line drawn across a sector's maximum allowable range from a Javelin firing position. To determine the location of this line on the ground, the SBCT company leadership identifies terrain features at or near maximum range. Therefore, any target that crosses or appears short of this line should be within range. Establishing a maximum engagement line greatly reduces target engagement times, especially for targets that seem to be near maximum range. Several range-determination techniques can be used to find the maximum range line or the range to specific targets.

(1) ***Laser Range-Finding Method.*** Most units and all FIST teams should have laser range-finders. The range from the Javelin position to an easily identifiable terrain feature can be easily determined with the laser range-finder. Once the maximum engagement line is determined, the gunner makes a note of a terrain feature at that location on his range card. Any vehicle nearing that feature will be in range.

(2) ***Object Recognition Method.*** Range determination by object recognition is simple and can be accurate with training. The soldier looks at the target with his naked eye, sights through 7X binoculars, or uses a Javelin optical sight. Targets listed in Table A-2 are recognizable out to the ranges indicated--for example, if a target can be recognized with the naked eye as an armored or wheeled vehicle, it is probably within 2,000 meters. When using this method, the gunner must consider terrain, visibility conditions, and target size.

TARGETS	RANGE (meters)	
	NAKED EYE	7X SCOPE
Tank crew members	500	2,000
Soldiers, machine gun, mortar	500	2,000
Antitank gun, antitank missile launchers	500	2,000
Tank, APC, truck (by model)	1,000	4,000
Tank, Howitzer, APC, truck	1,500	5,000
Armored vehicle, wheeled vehicle	2,000	6,000

Table A-2. Range determination recognition method.

(3) ***Map and Terrain Association Method.*** The maximum engagement line can be determined from a map. Do this for each firing position as follows:

- Draw an arc on the map across the assigned sector of fire at 2,000 meters.
- Examine the map to identify the distinctive natural or man-made terrain features that the line touches.
- Study the terrain in the sector of fire using binoculars or the Javelin CLU until all the selected terrain features are located and positively identified.
- Connect these features by an imaginary line from the maximum engagement line.

A-8. PRINCIPLES OF FIRE CONTROL

Effective fire control requires the SBCT company to rapidly acquire the enemy and mass the effects of fire in order to achieve decisive results. The following principles are fundamental to achieving effective fires. When planning and executing direct fires, the SBCT leadership should apply the following principles of fire control:

- Mass the effects of fire.
- Destroy the greatest threat first.
- Avoid target overkill.
- Employ the best weapon for the target.
- Minimize friendly exposure.
- Minimize the chances for fratricide.

A-9. FIRE CONTROL MEASURES

Fire control measures must enable Javelin gunners to distribute or mass fires effectively into a given area and over time. Fire control measures are the means by which the SBCT company commander and his subordinate leaders control fires. Application of these concepts, procedures, and techniques assists the unit in acquiring the enemy, focusing fires on him, distributing the effects of the fires, effectively shifting fires, and preventing fratricide. At the same time, no single measure is sufficient to effectively control fires. At the SBCT company level, fire control measures will be effective only if the entire company has a common understanding of what the fire control measures mean and how to employ them. When executing direct fires, the SBCT company commander and his subordinate leaders should apply these methods of fire control:

- Distribution of fires over a given area.
- Massing of fires into a given area.
- Distribution of fires over time.
- Massing of fires in time and space.
- Target reference points.
- Trigger lines and phase lines.
- Engagement priorities.

A-10. SELF-DEFENSE AGAINST HELICOPTERS

Because Javelin positions are selected to cover enemy armor avenues of approach, the medium-range fields of fire afforded by these positions also enable Javelin gunners to engage aircraft.

a. **Weapons Control Status.** The weapons control status established for air defense weapons applies to Javelin gunners too. Unless ordered otherwise, gunners should only fire in unit self-defense (for example, only engage aircraft that are attacking friendly positions).

b. **Self Defense Engagements.** A Javelin gunner can automatically engage an enemy helicopter that is attacking its position. The gunner's target engagement sequence is the same as against ground targets. The Javelin should be in the direct-fire mode when engaging helicopters. The rotors of the helicopter may interfere with the sensors of the missile in the top-attack mode and result in erratic flight of the missile and a target miss.

APPENDIX B

THE MGS PLATOON

The fundamental mission of the mobile gun system platoon is to provide mounted, precision direct fire support to the SBCT infantry company. Its ability to move, shoot, and communicate, and to do so with limited armored protection, is an important factor on the modern battlefield. The MGS platoon moves, attacks, defends, and performs other essential tasks to support the company's mission. In accomplishing its assigned missions, it employs firepower, maneuver, and shock effect, synchronizing its capabilities with those of other maneuver elements and with CS and CSS assets. When properly supported, the platoon is capable of conducting sustained operations against any sophisticated threat.

Section I. ORGANIZATION

The MGS platoon is organized to provide mounted, precision direct fire support to the dismounted infantry rifle platoons of the SBCT infantry rifle company. The platoon organization and the responsibilities of the platoon personnel will be discussed in this section.

B-1. PLATOON ORGANIZATION

Figure B-1 illustrates the organization of the MGS platoon. The platoon includes three MGS vehicles, each with a three-man crew (vehicle commander, gunner, and driver). The platoon leader and platoon sergeant are the VCs for two of the MGS vehicles.

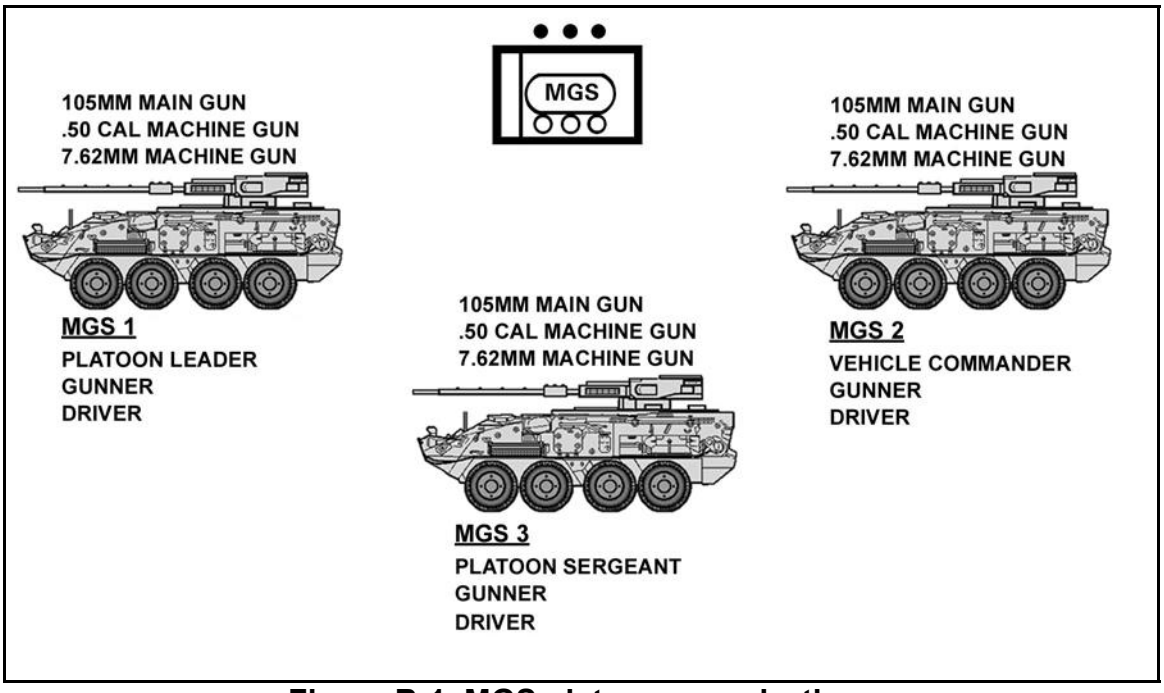


Figure B-1. MGS platoon organization.

B-2. RESPONSIBILITIES

The following paragraphs describe the responsibilities of personnel in the MGS platoon.

a. **Platoon Leader.** The MGS platoon leader is responsible to the SBCT infantry company commander for the discipline and training of his platoon, the maintenance of its equipment, and its success in combat. He must be proficient in the tactical employment of his vehicle and of the platoon. He must have a solid understanding of troop-leading procedures and develop his ability to apply them quickly and efficiently on the battlefield.

(1) The platoon leader must know the capabilities and limitations of the MGS platoon's personnel and equipment and must be well versed in enemy organizations, doctrine, and equipment. He must serve as an effective vehicle commander. Most importantly, the platoon leader must be flexible and capable of using sound judgment to make decisions based on his company commander's intent and the tactical situation.

(2) The platoon leader must know and understand both the SBCT infantry battalion's mission and the battalion commander's intent. He must be prepared to assume the duties of the SBCT infantry company commander in accordance with the succession of command.

b. **Platoon Sergeant.** The platoon sergeant is second in command and is accountable to the platoon leader for the training, discipline, and welfare of the soldiers in the platoon. He coordinates the platoon's maintenance and logistics requirements and resolves the personal needs of individual soldiers. The platoon sergeant is the most experienced VC in the platoon. His tactical and technical knowledge allows him to serve as mentor to the crewmen, other NCOs, and the platoon leader. His actions on the battlefield must complement those of the platoon leader. He must be able to fight his vehicle effectively, either in concert with the platoon or by itself.

c. **Vehicle Commander.** The vehicle commander is responsible to the platoon leader and platoon sergeant for the discipline and training of his crew, maintenance of assigned equipment, reporting of logistical needs, and tactical employment of his MGS. He briefs his crew, directs the movement of the MGS, submits all reports, and supervises initial first aid treatment and evacuation of wounded crewmen. He is an expert in using MGS weapons systems, requesting and adjusting indirect fires, and executing land navigation. He is personally responsible for aiming and firing the vehicle’s local defense weapon. The VC must know and understand the company mission and the company commander's intent. He must be prepared to assume the duties and responsibilities of the platoon leader or platoon sergeant in accordance with the succession of command. These requirements demand that the VC maintain constant awareness of the enemy and friendly situation by using all available optics for observation, by monitoring radio transmissions, and by using the FBCB2 system.

d. **Gunner.** The gunner searches for targets and aims and fires the main gun. He is responsible to the VC for the maintenance of his MGS armament and fire control equipment. The gunner serves as the assistant VC and assumes the responsibilities of the VC as required. He also assists other crewmembers as needed. The gunner's other duties include maintaining MGS communications and internal control systems, monitoring communications nets, and monitoring and maintaining the vehicle's fire control system.

e. **Driver.** The driver moves, positions, and stops the MGS. While driving, he constantly searches for covered and concealed routes and for covered positions to which he can move if the MGS is engaged. He maintains his vehicle's position in tactical formation and watches for visual signals. During engagements, he assists the gunner and VC by

scanning for targets and sensing fired rounds. The driver is responsible to the VC for the automotive maintenance and refueling of the MGS. He assists other crewmen as needed.

Section II. CAPABILITIES AND LIMITATIONS

To win in battle, leaders must have a clear understanding of the capabilities and limitations of their equipment. This knowledge assists the MGS platoon leader in evaluating transportability, sustainment, and mobility considerations for his vehicles and for those with which the platoon may operate as part of the SBCT infantry company.

B-3. CAPABILITIES

The MGS offers an impressive array of capabilities on the modern battlefield: cross-country mobility, sophisticated communications, enhanced target acquisition, lethal firepower, and limited armored protection. In combination, these factors produce the additional combat power that allows the MGS platoon to support the SBCT infantry company effectively in most weather and light conditions.

a. The MGS can move rapidly under a variety of terrain conditions, negotiating soft ground, shallow trenches, small trees, and limited obstacles. In addition, the GPS allows the MGS to move to designated locations quickly and accurately. Use of visual signals and the FM radio system facilitates rapid and secure voice and digital communication of orders and instructions. This capability links to FBCB2 to allow MGS crews to mass the effects of their weapons systems quickly while remaining dispersed to limit the effects of the enemy's antiarmor weapons.

b. On-board optics and sighting systems enable MGS crews to destroy fortifications or breach building walls using the main gun and to use the self-defense weapon to suppress enemy positions, personnel, and lightly armored targets. The MGS also has a limited capability to acquire and destroy enemy armored vehicles. The MGS's armor protects crewmembers from small-arms fire, light antiarmor systems, and most artillery.

B-4. LIMITATIONS

The MGS requires proficient operators and mechanics to maintain the appropriate level of maintenance and supply of POL products. The vehicle is vulnerable to the weapons effects of tanks and other medium to heavy assault vehicles, attack helicopters, mines, ATGMs, antitank guns, and close attack aircraft. When the MGS operates in built-up areas, dense woods, or other restricted terrain, reduced visibility leaves it vulnerable to dismounted infantrymen using shoulder-fired antiarmor systems. In these situations, the MGS is usually restricted to trails, roads, or streets, which severely limits maneuverability and observation. Existing or reinforcing obstacles can also impede MGS movement.

a. Although the MGS has a limited armor killing capability, it should never be considered a tank. The intended purpose of the MGS is primarily to close with and destroy enemy infantry.

b. Mobility restrictions in an urban environment may prohibit the platoon from fighting effectively as a platoon. The platoon may be required to fight as individual vehicles (detached to infantry platoons), unable to rely on one another for mutual support.

Section III. OFFENSIVE OPERATIONS

The MGS platoon is an integral part of the SBCT infantry company. The platoon conducts tactical movement, actions on contact, consolidation, and reorganization in support of the company. The MGS platoon can perform many tasks required by the company commander's intent, the tactical situation, and the ROE. Specifically, the MGS platoon can perform the following as part of an SBCT infantry company offense:

- Attack by fire.
- Overwatch/support by fire.
- Bypass.

B-5. ATTACK BY FIRE

The company commander may order the MGS platoon to execute an attack by fire to destroy the enemy using long-range, precision direct fires from dominant terrain or using standoff of the main gun. The MGS platoon can use an independent attack by fire to destroy inferior forces. In addition, the platoon may conduct an attack by fire as part of a company assault with the goal of destroying a superior force.

a. In executing an attack by fire, the MGS platoon conducts tactical movement to a position that allows it to employ weapons standoff or that offers cover for hull-down firing positions. It also must be ready to move to alternate firing positions for protection from the effects of enemy direct and indirect fires.

b. As time permits, the MGS platoon leader develops a hasty direct fire plan by designating TRPs and assigning sectors of fire and tentative firing positions for each MGS. He issues a platoon fire command specifying the method of fire, firing pattern, and rate of fire the platoon must sustain to support the company.

B-6. OVERWATCH/SUPPORT BY FIRE

The SBCT infantry company commander orders the MGS platoon to provide overwatch or support by fire during the movement of a friendly force. The MGS platoon must suppress the enemy using long-range, precision direct fires from a dominant piece of terrain or using the standoff of the main gun. This support sets the conditions that allow moving (mounted or dismounted) friendly elements to engage and destroy the enemy. The techniques involved in occupying an overwatch or support-by-fire position and in focusing and controlling fires are similar to those for an attack by fire. However, some specific considerations exist:

a. As noted, the overwatch or support-by-fire task is <u>always</u> tied directly to the movement or tactical execution of other friendly forces.

b. In executing overwatch or support by fire, the platoon must maintain a high level of awareness relative to the supported force so it can cease or shift direct fires and adjust indirect fires as required to prevent fratricide.

c. Throughout an overwatch or support by fire, the MGS platoon maintains cross talk with the moving force on the company net. In addition to reducing fratricide risk, cross talk allows the platoon to provide early warning of enemy positions it has identified. It can then report battle damage inflicted on the enemy force.

d. The MGS platoon can conduct combat operations in a built-up area. The MGS platoon may be tasked, as a unit or by individual vehicles, to conduct support-by-fire missions during urban operations to assist the SBCT infantry company in seizing a foothold or an objective in the built-up area.

e. A successful overwatch or support by fire operation suppresses the enemy, permitting the moving (mounted or dismounted) force to conduct tactical movement, breaching operations, or an assault. Figure B-2 illustrates a support-by-fire situation in support of an assault.

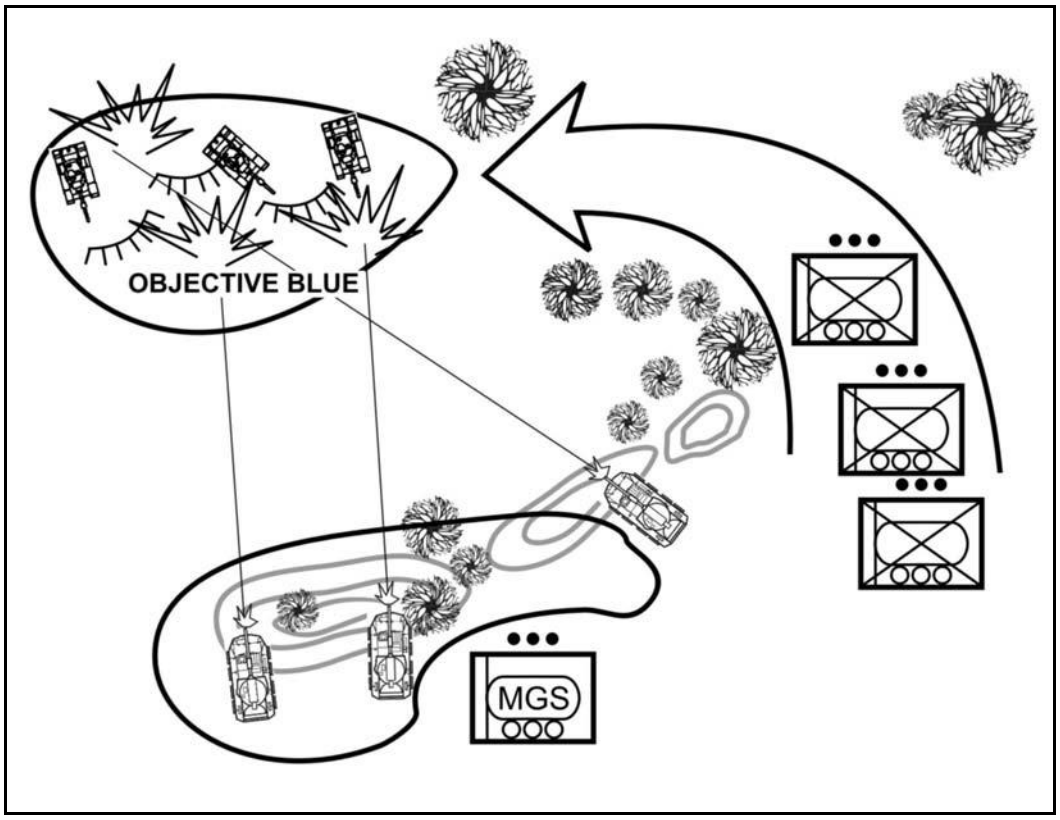


Figure B-2. MGS platoon supporting by fire to suppress an enemy element during a company assault.

B-7. BYPASS

As part of his original plan or based on a change in the situation, the company commander may order the company to bypass the enemy to maintain the tempo of the attack. This action can be taken against either an inferior or superior enemy force. The SBCT infantry company commander may designate the MGS platoon to suppress the enemy, allowing the other platoons to use covered and concealed routes, weapons standoff, and obscuration to bypass known enemy locations. (Units may have to execute contact drills while conducting the bypass.) Once clear of the enemy, the MGS platoon hands the enemy over to another friendly force (if applicable), breaks contact, and rejoins the company. If necessary, the MGS platoon leader can employ tactical movement to break contact with the enemy and continue the mission; he can also request supporting direct and indirect fires and smoke to suppress and obscure the enemy as the MGS platoon safely breaks contact (Figure B-3, page B-6, and Figure B-4, page B-7).

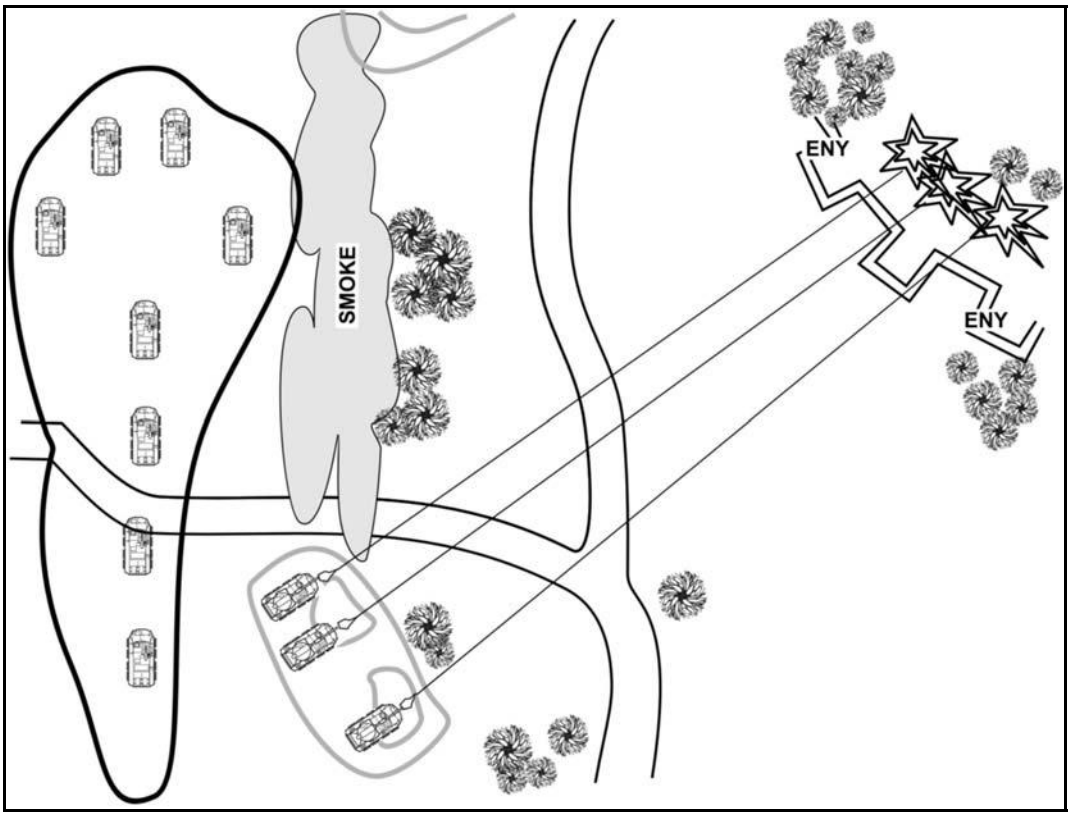


Figure B-3. Bypass (MGS suppressing the enemy).

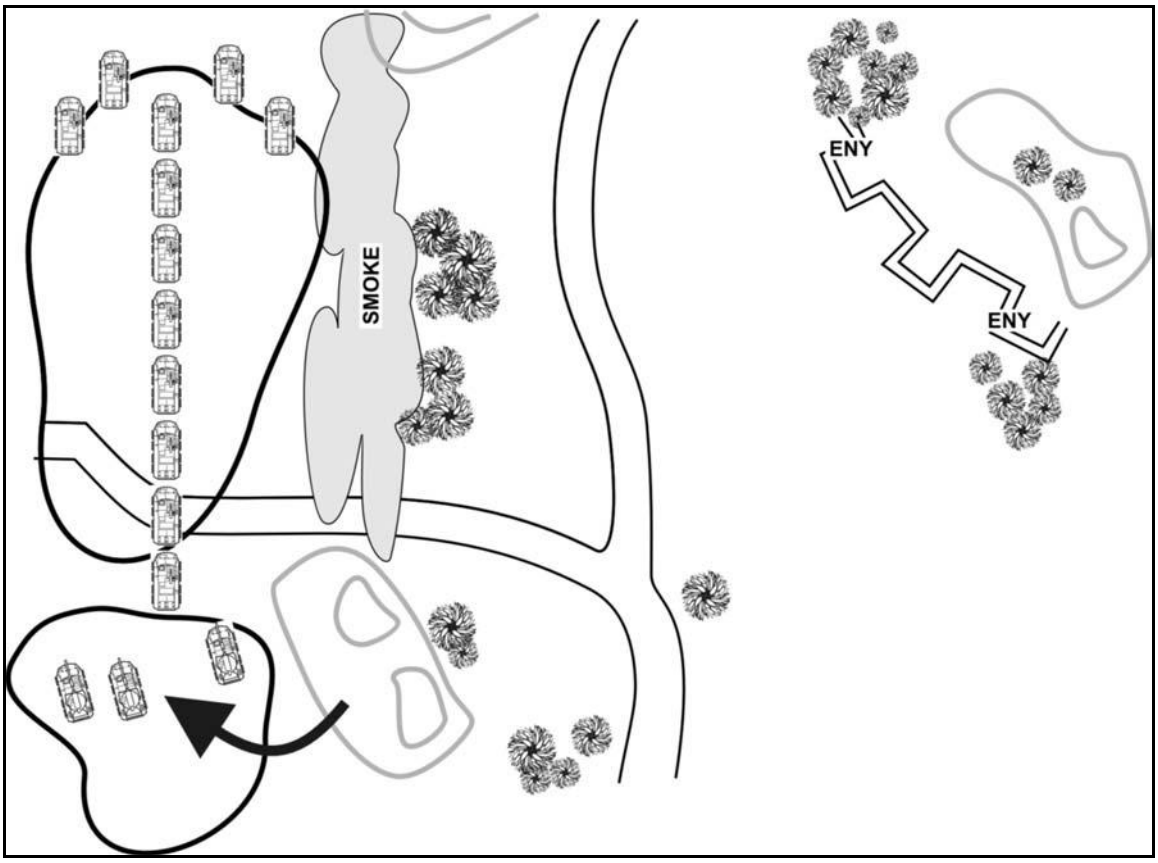


Figure B-4. Bypass (MGS platoon rejoining the company).

Section IV. DEFENSIVE OPERATIONS

In the defense, the MGS platoon provides the SBCT infantry company with precision direct fires from a mobile, medium-armored platform. (Refer to Chapter 5 of this manual for an explanation of defensive operations.) The MGS platoon can perform the following as part of an SBCT infantry company defense:

- Defend from a battle position.
- Participate in a counterattack.
- Perform as a reserve to conduct a spoiling attack, to block enemy penetration, to reinforce a defending platoon, or to assume the mission of another platoon.

B-8. DEFENDING FROM A BATTLE POSITION

When, based on the SBCT company commander's intent, the MGS platoon must defend a battle position, it may be tasked to destroy, block, or canalize enemy forces, or to displace to occupy successive battle positions. The MGS platoon leader must develop his portion of the company engagement area. An MGS platoon may be assigned a battle position as part of an SBCT infantry company battle position, perimeter defense, strongpoint defense, or sector defense. As a minimum, the MGS platoon leader must--

- Coordinate with adjacent infantry platoons and other organizations, both digitally and by analog communications.
- Assign sectors of fire and identify TRPs. As time permits, he continues to develop his EA using various direct fire control measures for his platoon

(maximum engagement line, engagement techniques, engagement criteria and priorities, and so on).
- Inspect each MGS vehicle position.
- Conduct rehearsals.
- Report to the SBCT infantry company commander when the MGS platoon has established its position.
- Control direct fires with platoon fire commands.
- Monitor ammunition expenditures.

B-9. PARTICIPATE IN A COUNTERATTACK

The purposes of a counterattack are to destroy the enemy, regain key terrain, relieve enemy pressure on an engaged unit and continue the offensive initiative of the company. The MGS platoon conducts counterattacks as part of a larger force but has a limited capability to conduct a counterattack by itself.

a. If the MGS platoon is designated as the counterattack force, the platoon leader coordinates with the affected units for covered and concealed locations and routes. Prior to execution of the defense, the platoon should rehearse these routes, time permitting. The platoon leader incorporates weapons standoff ranges into his planning. He controls direct and indirect fires during the counterattack. The platoon leader must disseminate all the information to the members of his platoon. If adjustments to any position or route become necessary, the counterattacking force must take immediate action to ensure that other forces shift or cease direct and indirect fires as appropriate. Otherwise, fratricide risk increases.

b. When the SBCT infantry company executes a counterattack with an MGS platoon, the platoon conducts tactical movement on a concealed route to a predetermined battle position or attack-by-fire position from which it can engage the enemy's flank or rear. The infantry platoons hold their positions and continue to engage the enemy (Figure B-5). The intent is to use the advantages of weapons standoff and cover to destroy the enemy by direct fires.

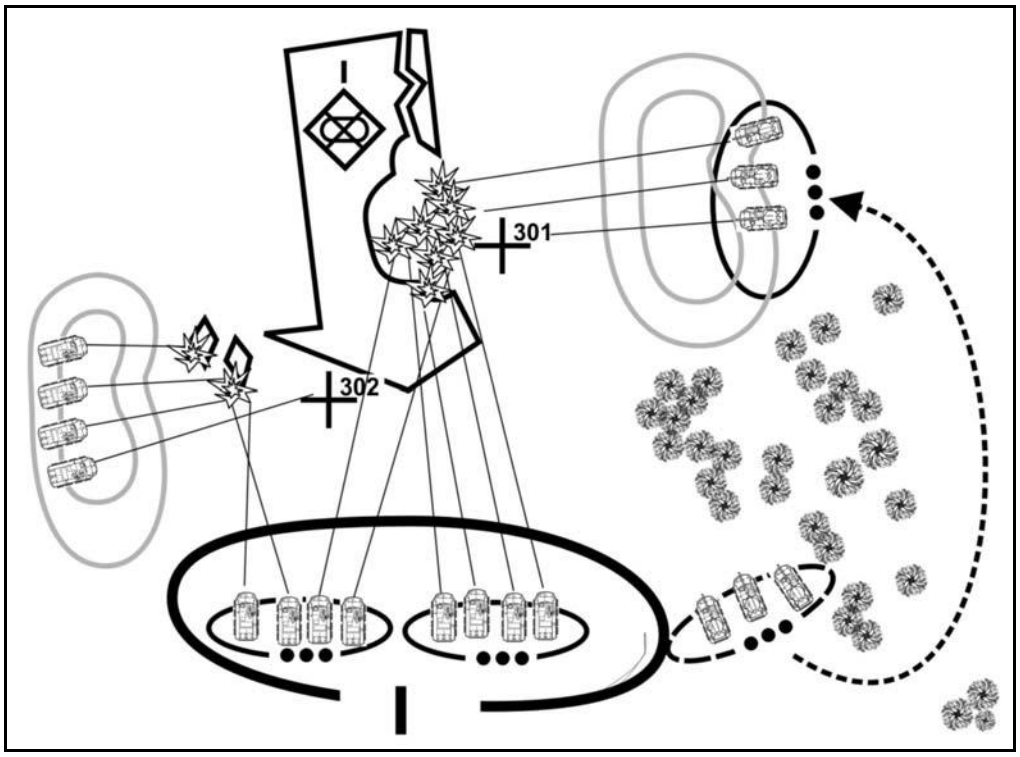


Figure B-5. MGS platoon as the company counterattack force.

B-10. PERFORM AS A RESERVE

The SBCT infantry company commander must weigh the mobility, lethality, and survivability of the MGS with the requirements of the reserve. This may lead the MGS platoon to be the company reserve or to form a portion of that reserve. The factors of METT-TC dictate the requirements. In the reserve role, the MGS platoon may execute either offensive or defensive missions.

a. In the role of the reserve, the MGS platoon may be tasked to conduct a spoiling attack, block enemy penetrations, or reinforce a defending platoon or company. The MGS platoon leader must understand both the SBCT infantry company and SBCT infantry battalion commanders' intents. This becomes critical with the multiple potential missions the MGS platoon can perform in its role as the SBCT infantry company reserve.

b. The MGS platoon may simply be assigned the mission of another SBCT infantry platoon while in the reserve.

Section V. URBAN OPERATIONS

Urban areas consist mainly of manmade features such as buildings, streets, and subterranean systems. These features of urban terrain create a variety of tactical problems and possibilities for MGS employment. To ensure that the MGS platoon can operate effectively in the urban environment, the MGS platoon's observation and direct fire plans must address the ground-level fight (in streets and on the ground floor of buildings), the aboveground fight (in multistoried buildings), and the subterranean fight.

B-11. CONSIDERATIONS

The following considerations apply to the MGS platoon in an urban environment.

a. An important aspect of the urban environment is that built-up areas degrade command and control. The MGS platoon may need to fight as individual vehicles attached to infantry platoons.

b. Streets are usually avenues of approach. Forces moving along a street, however, are often canalized by buildings and have little space for off-road maneuver. Obstacles on urban streets are therefore usually more effective than those on roads in open terrain since they are more difficult to bypass.

c. Buildings offer cover and concealment to and severely restrict the movement of armored vehicles. Buildings also severely restrict direct fire distribution, control, and fields of fire. Every street corner and successive block will have characteristics similar to an "intervisibility line," requiring careful overwatch. Thick-walled buildings provide ready-made fortified positions.

d. Subterranean systems found in some built-up areas can be easily overlooked, but they may prove critical to the outcome of urban operations.

e. The aboveground fight (in an area with multistoried buildings) requires an analysis by the MGS platoon leader, platoon sergeant, and VC. This analysis is necessary in order to determine whether, based on height and distance to the target, effective fire can be brought to bear on target areas above the second floor.

f. If the MGS platoon enters the built-up area, they typically must move and fight with an infantry force to provide an appropriate level of security for the MGS platoon.

B-12. ROLE OF THE MGS PLATOON

During the attack of a built-up area, the commander must employ his MGS platoon to take advantage of the MGS vehicle’s long-range, precision lethality and medium-armored protection. The MGS platoon may provide support by fire while lead SBCT infantry elements seize a foothold in an urban area. The MGS platoon can then provide overwatch or serve as a base of fire for the infantry until the area has been secured. The SBCT infantry company commander usually positions the MGS platoon outside the built-up area. It may remain there for the duration of the attack to cover high-speed avenues of approach. This is especially true if the intent is to isolate a specific area as the SBCT infantry company secures the objective area. However, the company commander may opt to attach one MGS vehicle to an infantry platoon within the built-up area while the remainder of the MGS platoon continues to isolate the objective area.

NOTE: Before providing support for the attack, an MGS vehicle must be able to maneuver into a support-by-fire position. This normally requires support from organic infantry weapons to suppress enemy strongpoints and ATGM assets.

a. **Command and Contro.**. The following command and control considerations affect the MGS platoon's planning and execution in the urban environment:

(1) ***Communications.*** The task organization that may take place during urban operations requires small tactical organizations such as squad or section elements, to establish additional communications links to replace those that may be disrupted by buildings and other urban terrain features.

(2) ***Fire Control.*** Extensive direct fire planning and restrictive fire control measures are essential during urban operations. Extensive use of RFLs and other graphic control measures is also essential.

(3) ***Proximity and Visibilit.***. Friendly elements must often operate in confined and restrictive areas during urban operations, and they may not be able to see other friendly forces nearby. These factors significantly increase the risk of fratricide; therefore, increased communications, graphic control measures, and rehearsals are essential.

(4) ***Personnel Factors.*** Urban operations impose significant and often extreme physical and psychological demands on soldiers and leaders. The MGS platoon's increased use of supplies (such as fuel and ammunition) and the increased chance of destruction from ATGM fires in the urban environment add to these demands.

(5) ***Rules of Engagement, Rules of Interaction, and Civilians.*** The rules of engagement and rules of interaction may restrict the use of certain weapons systems or techniques and procedures. As an integral part of the urban environment, noncombatants create special operational problems. To deal with these concerns, units operating in urban terrain must know how to employ the MGS effectively within the parameters of the ROE and ROI.

(6) ***Tempo of Urban Operations.*** Because of the slow and deliberate nature of urban operations, the MGS platoon may not be able to take full advantage of its lethality and the speed and mobility of its vehicles.

b. **Maneuver.** The following factors related to maneuver affect the MGS platoon's planning and execution in the urban environment:

(1) ***Need for Detailed Centralized Planning and Decentralized Execution.*** UO usually include a deliberate attack, demanding extensive intelligence activities and rehearsals.

(2) ***Requirements for Coordination.*** UO are successful when close coordination is established at the lowest level between SBCT infantry squads and MGS vehicles.

(3) ***Formation of Combined-Arms Teams at the Lowest Levels.*** Whereas task organization is normally done no lower than platoon level, UO may require task organization of squads and vehicles. The MGS platoon may face a number of organizational options, such as a single MGS vehicle working with an infantry platoon.

(4) ***Vulnerability of Friendly Forces.*** An MGS can provide precise direct fires to support accompanying infantry squads, but it is, in turn, vulnerable to attack from enemy infantry and ATGMs. The attacking force in UO must also guard against local counterattacks.

c. **Task Organization.** The task organization of an MGS platoon taking part in an attack during urban operations varies according to the specific nature of the built-up area and the objective. In general, the SBCT battalion or SBCT infantry company employs an assault force, a support force, a reserve, and, in some cases, a security force. Normally, there is no separate breach force, but breaching elements may be part of the assault or support force, depending on the type and location of anticipated obstacles.

(1) ***Assault Force.*** The assault force is the element that gains a foothold in the urban area and conducts the clearance of actual objectives in the area. This force is normally a dismounted element task-organized with engineers with specific augmentation by ICVs or MGSs, either as a platoon or as a single vehicle.

(2) ***Support Force.*** Normally, most mounted elements taking part in UO, such as the MGS platoon, are task-organized in the support force. This allows the SBCT infantry

company commander to employ the firepower of the MGS platoon without compromising its survivability. The support force isolates the AO and the actual entry point into the urban area, or it provides precision direct fire to suppress enemy positions allowing assault forces to seize a foothold.

(3) ***Reserve Force.*** The reserve force normally includes both mounted and dismounted forces. It should be prepared to conduct any of the following tasks:

- Engage enemy from an unexpected direction.
- Exploit friendly success or enemy weakness.
- Secure the rear or flank of friendly forces.
- Clear bypassed enemy positions.
- Maintain contact with adjacent units.
- Conduct support by fire or attack by fire, as necessary.

B-13. MGS CAPABILITIES AND LIMITATIONS IN UO

Numerous factors related to vehicles and equipment affect planning and employment of the MGS platoon in an urban environment. These include the following:

a. **Ammunition.** The preferred main gun rounds in the UO environment are high explosive, antitank, tracer (HEAT-T), high explosive, plastic, tracer (HEP-T), and white phosphorus, tracer (WP-T). These perform much better than sabot rounds against bunkers and buildings.

(1) HEAT-T ammunition arms approximately 60 feet from the gun muzzle. It loses most of its effectiveness against urban targets at ranges less than 60 feet.

(2) HEP-T is used primarily against field fortifications, bunkers, buildings, crew-served weapon emplacements, and troops (where blast concussion and fragmentation are desired).

(3) The primary purpose of WP-T is to mark and screen targets, but the round can also be used to ignite combustible material.

(4) Sabot petals endanger accompanying infantry elements. They create a hazard area extending 70 meters on either side of the gun-target line, out to a range of 1 kilometer.

(5) Beehive ammunition is used primarily against troops in the open. Beehive use may be restricted in an urban environment due to the confined area.

b. **Machine Guns.** The local defense weapon can effectively deliver suppressive fires against enemy personnel and against enemy positions that are behind lightly clad buildings. This weapon may be dismounted and used in a ground role, if necessary.

c. **Visibility and Security.** When buttoned up, the MGS crew has limited visibility to the sides and rear and no visibility to the top. Figures B-6 and B-7 illustrate the dead space associated with MGS operations in an urban environment. When an MGS is buttoned up, dismounted infantry must provide local security to cover the dead space of the MGS (side, top, and rear).

d. **Main Gun Elevation and Depression.** Elevation of the main gun to +20 degrees is required to support dismounted infantry assaults in urban terrain. Elevation of +20 degrees is also required to provide effective direct fires to support infantry assaults on high ground at ranges up to 1,000 meters for local defense weapons and 2,000 meters for the main gun. This capability is crucial when MGS platforms are unable to maneuver on designated infantry axes of attack and must support the infantry forces from a distance.

Depression to -10 degrees is required when the MGS is used to mass fires on enemy in low ground engagement areas during defensive operations.

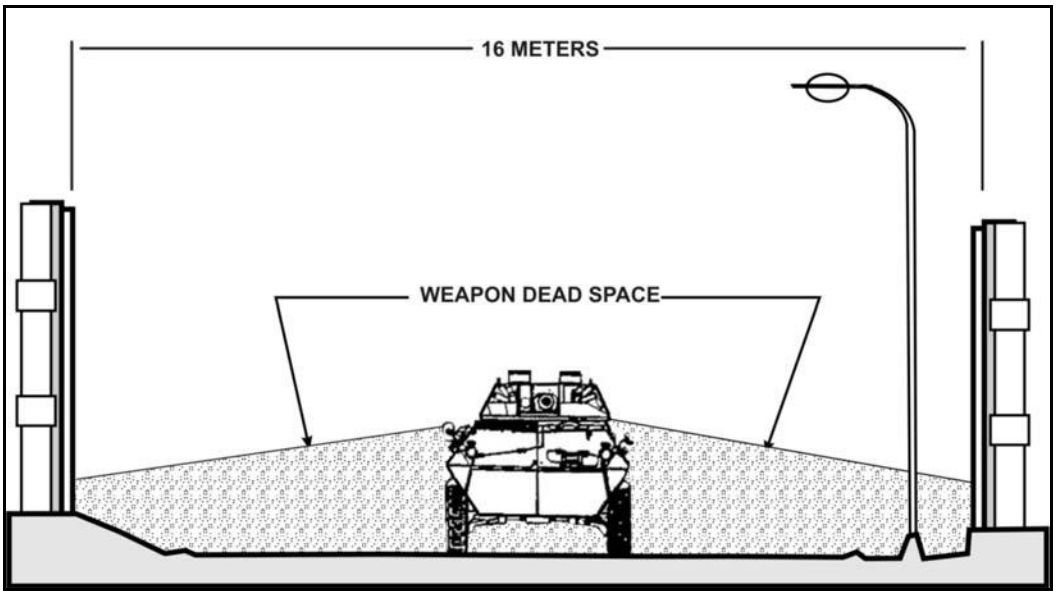


Figure B-6. MGS weapon dead space at street level.

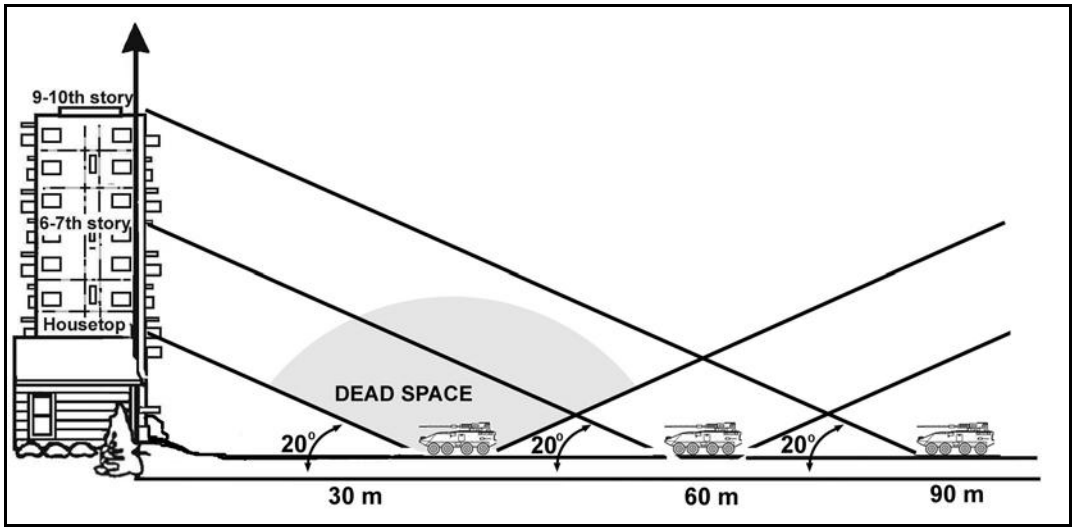


Figure B-7. MGS weapon dead space above street level.

B-14. DEFENSIVE TECHNIQUES IN UO

In defensive UO, the MGS platoon provides the SBCT infantry company commander with a mobile force that can respond quickly to enemy threats. The platoon's vehicles should be located on likely enemy avenues of approach in positions that allow them to take advantage of their precision long-range direct fires.

a. **Employment of the MGS Platoon.** Effective positioning allows the SBCT infantry company commander to employ the MGS platoon in a number of ways, such as the following:

- On the edge of the city in mutually supporting positions.
- On key terrain on the flanks of towns and villages.
- In positions from which they can cover barricades and obstacles by fire.
- As part of the company reserve.

The MGS platoon is normally employed as a platoon. However, the commander also has the alternative of employing individual MGS vehicles with infantry platoons and squads. This alternative allows the MGS vehicles to take advantage of the close security provided by dismounted infantry and increases the lethality of those infantry forces.

b. **Fighting Positions.** Fighting positions for MGS vehicles are an essential component of a complete and effective defensive plan in built-up areas. Vehicle positions must be selected and developed to afford the best possible cover, concealment, observation, and fields of fire. At the same time, they must not restrict the vehicle's ability to move when necessary. These considerations apply:

(1) If fields of fire are restricted to the street area, hull-down positions should be used to provide cover and to enable MGS vehicles to fire directly down the streets. From these positions, the vehicles are protected while retaining their ability to move rapidly to alternate positions. Buildings collapsing from enemy fires are a minimal hazard to MGS vehicles and their crews.

(2) Before moving into position to engage the enemy, an MGS vehicle can occupy a hide position for cover and concealment. Hide positions may be located inside buildings or underground garages, adjacent to buildings (using the buildings to mask enemy observation), or in culverts (Figure B-8).

(3) Since the crew cannot see the advancing enemy from the hide position, an observer from the MGS vehicle or nearby dismounted infantry must be concealed but still able to alert the crew. When the observer acquires a target, he signals the MGS to move to the firing position and, at the proper time, to fire.

(4) After firing, the MGS moves to an alternate position to avoid compromising its location.

WARNING

When pulling into a building to use it as a vehicle hide position, ensure the floor will support the vehicle's weight. Otherwise, the vehicle could fall through the floor.

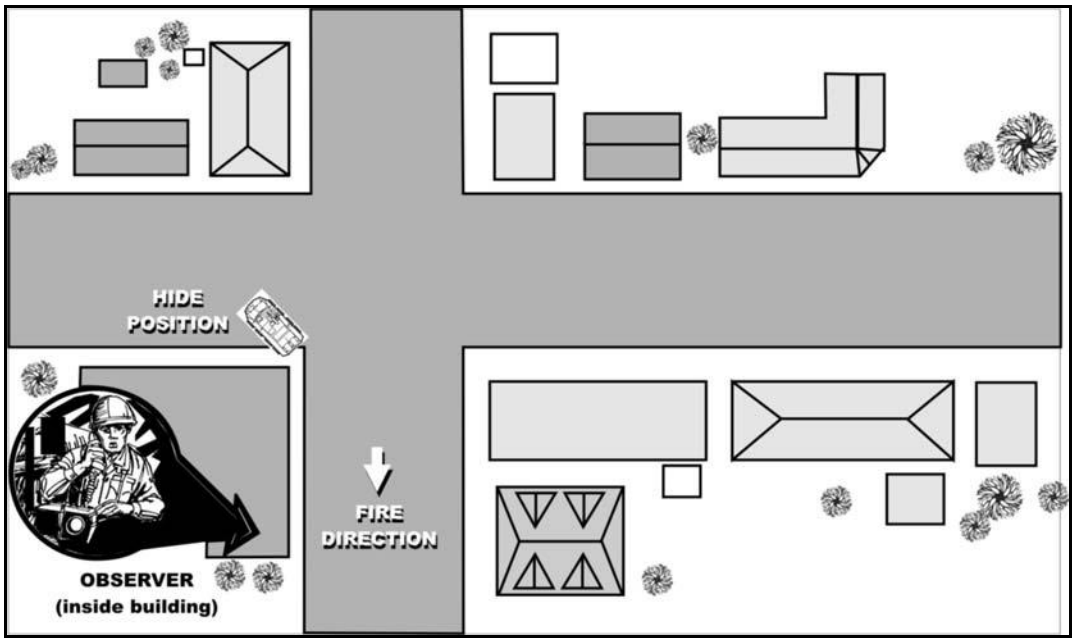


Figure B-8. Example vehicle hide position in an urban environment.

B-15. EMPLOYMENT OF THE RESERVE FORCE

The company commander must always consider the employment of a reserve force in his UO defensive scheme of maneuver. This force should be prepared to counterattack to regain key positions, to block enemy penetrations, to protect the flanks of the friendly force, or to provide a base of fire for disengaging elements. For combat in built-up areas, the reserve force must be as mobile as possible. The MGS platoon (or a portion) is likely to be the centerpiece of the company reserve force.

Section VI. STABILITY OPERATIONS AND SUPPORT OPERATIONS

As noted, the MGS platoon has unique capabilities that make it an important asset to US and combined forces executing missions in both stability operations and support operations. The platoon may be called upon to support a wide range of operations in various political and geographical environments. Examples of these operations are included in Chapters 8 and 9 of this manual.

B-16. MGS CAPABILITIES AND LIMITATIONS IN STABILITY OPERATIONS AND SUPPORT OPERATIONS

The MGS platoon is usually used for stability and support activities that need to take maximum advantage of its inherent capabilities of firepower, maneuver, shock effect, and survivability for a specific operation. The platoon moves, attacks, and defends using procedures similar to those described throughout this field manual.

a. On the other hand, the factors of METT-TC and the operational considerations prevalent in both stability operations and support operations may modify the conditions for successful mission accomplishment. This means the MGS platoon occasionally may be assigned missions that are normally handled by specially trained and equipped elements. For example, the platoon could be tasked for crowd and riot control if a shortage of military

police exists. (Coordination must be conducted early on to determine whether the military police organizations are digital- or analog-capable.)

b. Several problems arise when medium armored forces are used in this type of role. To perform with complete effectiveness and efficiency, crewmen must receive special equipment and training before executing such a mission. Certain situations during stability or support operations may effectively negate the MGS platoon's inherent advantages (lethality, mobility, and survivability). Therefore, the company commander must determine where and when to use the MGS platoon to maximize its advantages.

B-17. EMPLOYMENT EXAMPLES

The following situations examine several MGS platoon employment considerations during stability or support operations. These examples are not all-inclusive; assessment of the factors of METT-TC and the operational considerations applicable in the area of operations may identify additional mission requirements. The relatively simple situations illustrated here do not adequately portray the ever-changing, often confusing conditions of stability or support operations in which versatility is key to success (and survival). To the extent possible, the company commander should attempt to shape the role or mission of the MGS platoon to match the platoon's unique characteristics and capabilities. Figure B-9 illustrates a MGS platoon as part of a battle position and reserve/reaction missions.

NOTE: Refer to Chapter 6 of this manual for an explanation of UO. As noted, these operations often provide the operational framework for both stability operations and support operations.

a. **Establish a Battle Position.** The platoon establishes a battle position or conducts a relief in place at a platoon battle position as part of an SBCT infantry company perimeter or strongpoint defense (A, Figure B-9). The SBCT infantry company MGS platoon and dismounted infantry should be integrated. Coordination with dismounted patrols and OPs outside the perimeter is critical. Signs, in the local language, should be posted as necessary within the engagement area to identify movement restrictions on the local populace. (See Chapter 5 for detailed information on defensive operations.)

b. **Conduct Reserve Operations.** As part of the SBCT battalion or SBCT infantry company reserve, the MGS platoon occupies an assembly area or establishes a perimeter defense (B, Figure B-9). Potential missions include linkup with and relief of encircled friendly forces (B1, Figure B-9); linkup and movement to secure an objective in an operation to rescue a downed helicopter or stranded vehicle (B2, Figure B-9); and tactical movement to destroy enemy forces attacking a convoy (B3, Figure B-9). In all three scenarios, the MGS platoon conducts tactical movement and actions on contact. Items such as linkup, support by fire, attack by fire, assault, hasty attack, and consolidation and reorganization are also critical to the reserve mission. (For more information on these operations, refer to Chapters 4, 5, and 8.)

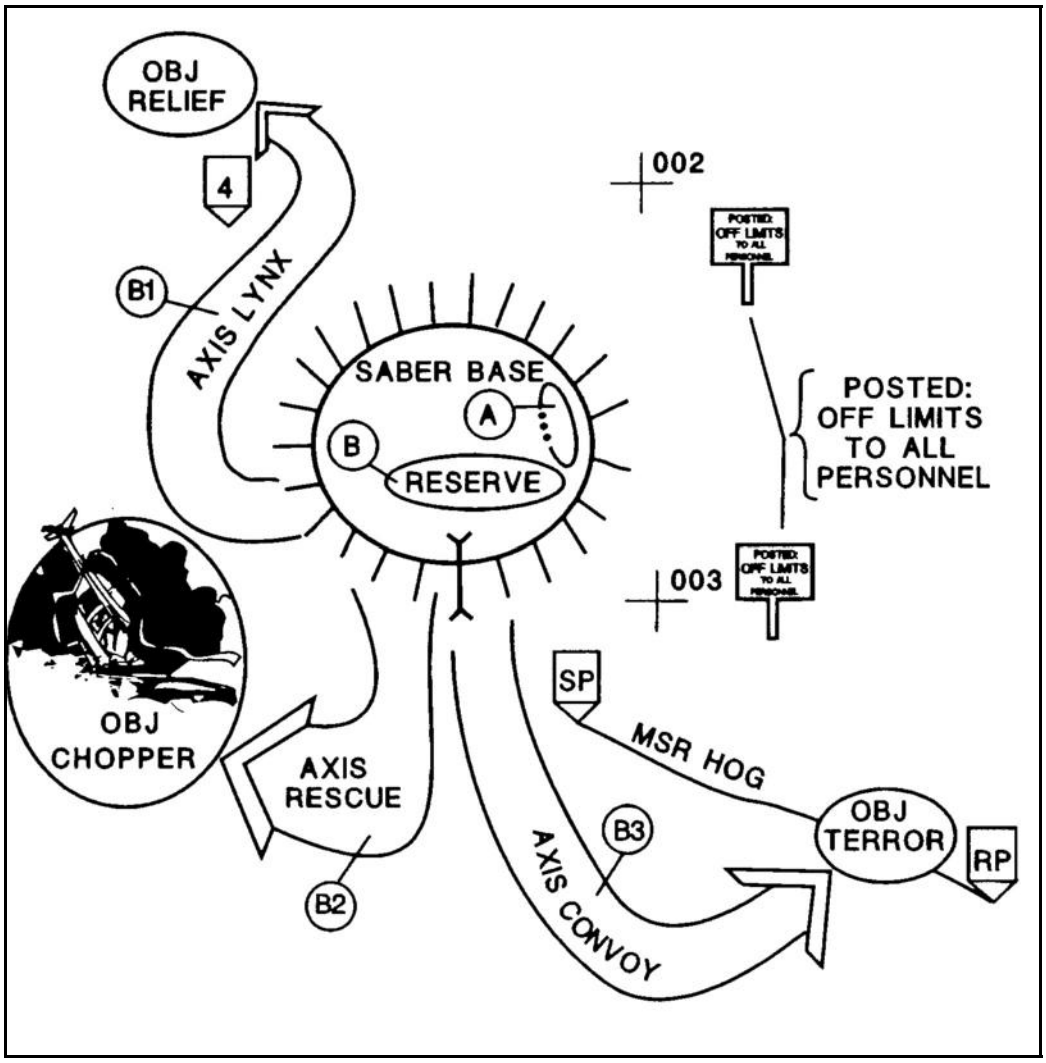


Figure B-9. Battle position and reserve/reaction force missions.

c. **Overwatch a Traffic Control Point.** The MGS platoon (or vehicle) overwatches an infantry or MP traffic control point (C, Figure B-10, page B-19). The overwatch element must ensure its own local security, usually by coordinating with dismounted infantry for OPs and dismounted patrols from the company.

d. **Defend a Choke Poin.**. The MGS platoon with an infantry squad (or an infantry platoon with an MGS vehicle) occupies a perimeter defense to protect traffic and facilitate movement through a choke point along the main supply route (D, Figure B-10, page B-19). The integration of MGS and infantry in the perimeter defense is critical to mass the effects of firepower and to provide early warning and OPSEC for the defense by means of dismounted patrols and OPs. For detailed information on defensive operations, see Chapter 5.

e. **Overwatch a Blockade or Roadblock.** The MGS platoon (or vehicle) overwatches a blockade or roadblock, either a manned position or a reinforcing obstacle covered by fires only (E, Figure B-10, page B-19). The company commander must coordinate dismounted infantry OPs and patrols when employing an MGS to overwatch a blockade or roadblock.

MGS positions are improved using procedures for deliberate occupation of a BP (see Chapter 5).

f. **Conduct Convoy Escort.** The MGS platoon conducts convoy escort duties (F, Figure B-10) using procedures covered in Chapter 8.

g. **Conduct Proofing/Breaching Operations.** The MGS platoon (or vehicle) overwatches breaching operations along the MSR or provides overwatch to engineer elements as they clear the route (G, Figure B-10). Based on the factors of METT-TC, the MGS platoon may use tactical movement techniques to provide overwatch for the proofing element, which can be dismounted soldiers, an engineer vehicle, or a tank (equipped with a mine roller, if available). If mines are detected, the MGS platoon continues to overwatch the breaching force until all mines have been detected and neutralized. If the obstacle is not within the breaching unit's capability, engineers are called forward. At all times, overwatch vehicles should take notice of anything that is out of the ordinary, such as new construction, repairs to damaged buildings, plants or trees that seem new or out of place, and freshly dug earth. These conditions may indicate the presence of newly emplaced or command-detonated mines. At no time will an MGS conduct breaching or proofing operations.

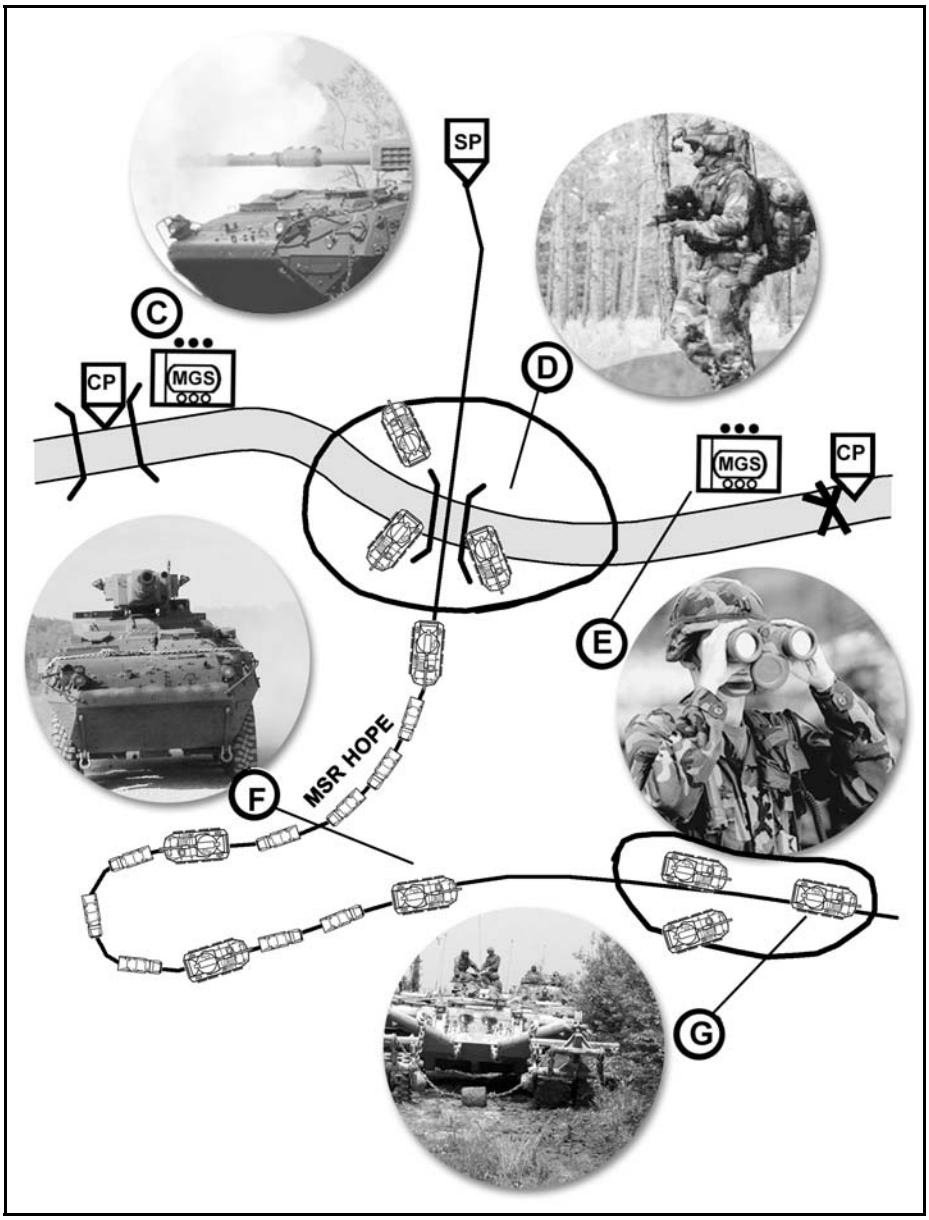


Figure B-10. Traffic control point, choke point, blockade, convoy escort, and route proofing missions.

h. **Conduct Cordon and Search Operations.** During cordon and search operations, the MGS platoon occupies overwatch or hasty defensive positions (or both) to isolate a search area (Figure B-11, page B-20). Close coordination and communication with the search team are critical, as is employment of OPs and patrols to maintain surveillance of dead space and gaps in the cordoned area. The MGS platoon (or vehicle) must be prepared to take immediate action if the search team or OPs identify enemy forces. Enemy contact may require the MGS platoon to execute tactical movement and linkup.

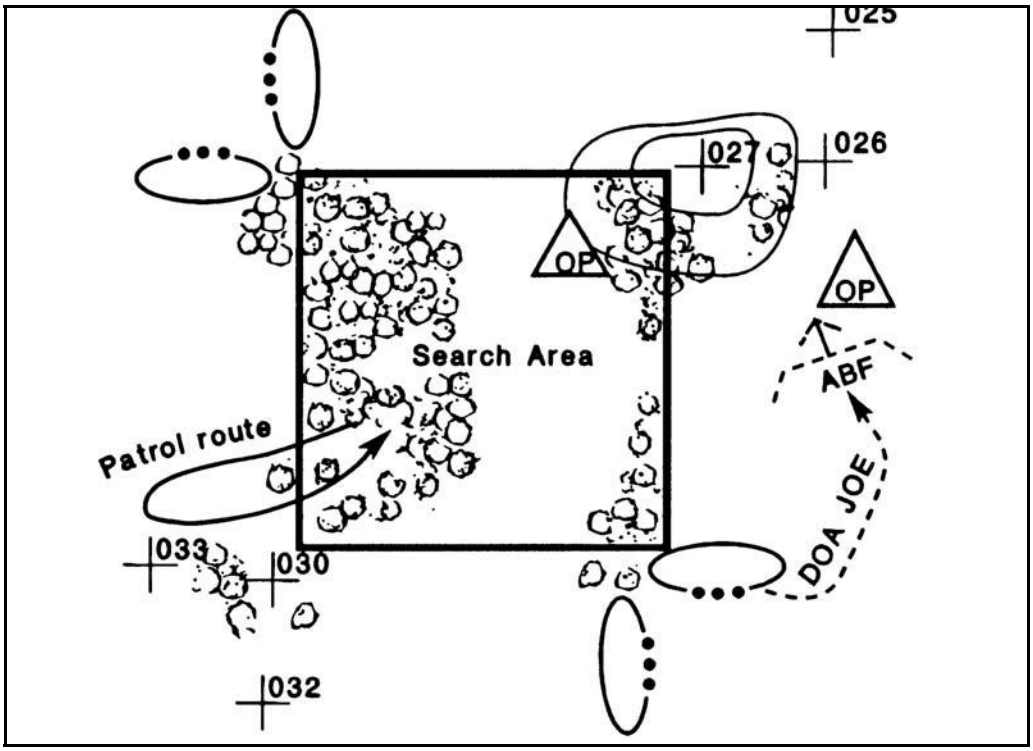


Figure B-11. Cordon and search operations.

APPENDIX C
SNIPERS

SBCT infantry companies and battalions use snipers extensively in all operations. Snipers can significantly increase the company's combat power if utilized correctly.

C-1. SNIPER CHARACTERISTICS AND PLANNING

The SBCT infantry company employs snipers in three-man teams, each consisting of a sniper, an observer, and one man who secures the team. The senior man in the team is the observer, the next most senior is the sniper, and the junior man secures the sniper team. Normally, the observer and the security man carry an M4 or M203, and the sniper carries the chosen sniper weapon. Sniper teams should avoid sustained battles. During long periods of observation, team members help each other with range estimation, round adjustment, and security.

a. Sniper teams should be centrally controlled by the commander but may be task-organized to platoons. Once deployed, sniper teams must be able to operate independently, as required. Therefore, they must understand the commander's intent, his concept of the operation, and the purpose for their assigned mission. This understanding allows the sniper teams to exercise responsible initiative within the framework of the commander's intent and to support the commander's concept and achievement of the unit's mission. To ensure clear fields of fire and observation, the teams must be able to choose their own positions once they are on the ground. Sniper teams are effective only in areas that offer good fields of fire and observation.

b. Sniper teams should move to a release point with a security element (squad or platoon) when possible. The sniper team moves on its own after reaching the release point, which allows the team to reach its area of operations faster and more safely than if it went alone from the start point. A security element can also protect the sniper section during operations. When moving with a security element, snipers follow these guidelines:

(1) The leader of the security element leads the sniper team.

(2) Snipers must appear to be an integral part of the security element. Thus, the sniper team should carry the sniper weapon system in line with and close to the body to hide its outline and barrel length and should conceal from view all sniper-unique equipment such as optics and ghillie suits. The team also should maintain proper intervals and positions in the element formation and wear the same uniform as that of element members.

c. History has proven that a commander who employs snipers intelligently, skillfully, and with originality gains a payoff far greater than expected. Therefore, it is essential that a company commander understand the proper employment of sniper teams. If a company commander knows the abilities and limitations of a sniper team, then the team can contribute significantly to the fight. A company commander should consider carefully all the factors of METT-TC to determine proper employment of sniper teams.

(1) ***Mission Analysis.*** The sniper team's primary concern is to support combat operations by delivering precise rifle fire from concealed positions. The mission assigned to a sniper team for a particular operation consists of the task(s) that the company commander wants the sniper team to accomplish and the purpose for each task. The commander must decide how he wants his sniper team to affect the battlefield; then he

must assign missions to achieve this effect. The company commander must prioritize targets so the sniper team can avoid involvement in sustained engagements. Regardless of the method used, the sniper team must be free to exercise responsible initiative by changing targets to continue to support the commander's intent.

(a) The company commander may describe the effect or result he expects and allow the sniper team to select key targets. Whether he does this depends on the sniper team's skills and on how well he trusts them.

(b) He may assign specific types of targets. For example, if he wants to disrupt the defensive preparations of the enemy, he may want the sniper team to kill bulldozer and other engineer equipment operators. He may want them to disable vehicles carrying supplies, or he may want them to engage soldiers digging enemy defensive positions.

(c) He also may assign specific targets. These can include leaders, command and control operators, ATGM gunners, armored-vehicle commanders, or crew-served weapons crews.

(2) ***Enemy Analysis.*** The commander must consider the composition, disposition, strengths, capabilities, weaknesses, and characteristics of the enemy. Is the enemy force heavy or light, rested or tired, disciplined or not? Is it motorized infantry or towed artillery? Is it well-supplied or severely short of supplies? Is the enemy patrolling aggressively or does he have minimal security? Is he positioned in assembly areas or dug in? The answers to such questions help the company commander determine the enemy's susceptibility and reaction to effective sniper team employment. Naturally, a well-rested, well-led, well-supplied, and aggressive enemy with armored protection poses a greater threat to a sniper team than an enemy who is tired, poorly led, poorly supplied, lazy, and unprotected. The company commander Also needs to know if enemy snipers are present and if they are effective. Enemy snipers can pose a significant danger to the company sniper team. The sniper team can assist the commander in determining or countering the enemy sniper threat. A sniper has expert knowledge of sniping and likely enemy hiding places; he can normally engage enemy marksmen and irregulars at a greater range than the enemy sniper can engage the company.

(3) ***Terrain Analysis.*** The commander must evaluate the terrain in the sniper's area of operations, the terrain he must travel to reach it, and the time and effort snipers will expend getting into position. He must also consider the effect of weather on the sniper and on his visibility. The snipers will need good firing positions. They prefer positions at least 300 meters from their target area. Operating at this distance allows them to avoid effective fire from enemy rifles, yet they retain much of the 800- to 1,000-meter effective range of the sniper rifle. To be most effective, snipers need areas of operations with adequate observation and fields of fire.

(4) ***Troop Analysis.*** The company commander must decide how to employ all available assets. (Along with the company sniper section, each squad has a designated marksman). Much depends on soldier availability, the duration of the operation, the expected opposition, and the number and difficulty of tasks and targets assigned to the sniper team and the designated marksmen. Commanders also must consider the level of training and physical conditioning of the sniper team and the designated marksmen.

(5) ***Time Analysis.*** The company commander must consider how much time the sniper team will have to achieve the expected result. The sniper team needs time to plan, coordinate, prepare, rehearse, move, and establish positions. A company commander

must know and accept the increased risk of sniper team employment when the team lacks adequate time for planning or for other preparations such as moving to the area of operations.

(a) The amount of time a sniper team can remain in a position without losing effectiveness due to eye fatigue, muscle strain, or cramps depends mostly on the type of position. A sniper team usually can remain in an expedient position for 6 hours before it must be relieved. It can remain in the belly position or the semi-permanent hide for up to 48 hours before the team must be relieved. Mission duration times average 24 hours. (FM 23-10 provides guidance on sniper position considerations, construction, preparation, and occupation.)

(b) Movement factors for a sniper team moving with a security element are the same as for any infantry force. When a sniper team moves alone in the area of operations, it moves slowly, with its movement measured in feet and inches. The sniper team is the best source for determining an accurate time estimate for a particular movement.

(6) ***Civilian Considerations.*** In cases where large crowds pose a threat to US forces, a sniper team can single out selected individuals. In populated areas where casualties should be kept to a minimum, the sniper team can be assigned to destroy enemy snipers.

C-2. EMPLOYMENT DURING OFFENSIVE OPERATIONS

Offensive operations carry the fight to the enemy to destroy his capability and will to fight. By destroying enemy targets that threaten the success of the attack, the sniper team can play a major role in offensive operations.

a. **Offensive Operations.** During offensive operations, a sniper team may perform the following:

- Destroy enemy snipers.
- Overwatch movement of friendly forces and suppress enemy targets that threaten the moving forces.
- Place precision rifle fire on enemy crew-served weapons teams and into exposed bunker apertures.
- Place precision rifle fire on enemy leaders, armored-vehicle drivers or commanders, forward observers, and other designated personnel.
- Place precision rifle fire on small, isolated, or bypassed enemy forces.
- Place precision rifle fire on enemy forces fleeing or threatening a counterattack.
- Screen a flank.
- Secure key terrain by controlling access to it with precision rifle fires.

b. **Movement to Contact.** During a movement to contact, a company commander has two sniper team employment options: the sniper team can move with the lead element, or the commander can employ the sniper team 24 to 48 hours prior to the company's movement to--

- Select positions.
- Gather information about the enemy.
- Secure key terrain, preventing enemy surprise attacks.

c. **Mounted Attack.** During a mounted attack, the company's rapid movement limits the sniper team's role. However, when the company dismounts the infantry squads, the sniper team can be employed to support the dismounted assault.

d. **Raid.** During a raid, the sniper team can be employed with either the security element or the support element--

- To cover avenues of approach and any escape routes that lead in to and out of the objective.
- To cover friendly routes of withdrawal to the rally point.
- To provide long-range rifle fires on the objective.

e. **Consolidation.** After consolidation, the sniper team may displace forward to new positions. These positions need not be on the objective. However, the sniper team must be able to place precision rifle fire on bypassed enemy positions, enemy counterattack forces, or other enemy positions that could degrade the company's ability to exploit the success of the attack.

C-3. EMPLOYMENT DURING DEFENSIVE OPERATIONS

A sniper team may effectively enhance or augment any company's defensive fire plan. After analyzing the terrain, the sniper team should recommend options to the company commander.

a. **Defensive Operations.** During defensive operations, a sniper team may perform the following:

- Overwatch obstacles and demolitions.
- Perform counterreconnaissance (destroy enemy reconnaissance elements).
- Engage enemy observation posts, armored-vehicle commanders exposed in turrets, and ATGM teams.
- Damage enemy vehicle optics to degrade movement.
- Suppress enemy crew-served weapons.
- Disrupt enemy follow-on units with long-range rifle fire.

b. **Primary Positions.** Sniper teams are generally positioned to observe or control one or more avenues of approach into the defensive position. The types of weapons systems available to the sniper team may lead the company commander to use his sniper team against secondary avenues of approach to increase all-round security and to allow him to concentrate his combat power against the most likely enemy avenue of approach. Sniper teams may support the company by providing precise extra optics for target acquisition and long-range rifle fires to complement those of the M249 machine gun. This arrangement best utilizes the company's weapons systems. Sniper teams may also be used in an economy-of-force role to cover dismounted enemy avenues of approach that the company cannot cover with other available assets.

c. **Alternate and Supplementary Positions.** A sniper team establishes alternate and supplementary positions for all-round security. Positions near the FEBA are vulnerable to concentrated enemy attacks, enemy artillery, and obscurants. The sniper team and designated marksmen can be positioned for surveillance and mutual fire support. If possible, they should establish positions in depth for continuous support during the fight. The sniper's rate of fire neither increases nor decreases as the enemy approaches. Specific targets are systematically and deliberately shot; accuracy is far more important than speed.

d. **Overwatch.** The sniper team can be placed to overwatch key obstacles or terrain such as river-crossing sites, bridges, and minefields that canalize the enemy directly into engagement areas. Sniper weapons are mainly used where other weapons systems are less

effective due to security requirements or terrain. Even though the company commander has access to weapons systems with greater ranges and optical capabilities than those of the sniper weapons, he may be unable to use these for any of several reasons. Unlike sniper weapons, the other weapons systems may present too large a firing signature, be difficult to conceal, create too much noise, or be needed more in other areas. The sniper team can provide the company commander with greater observation capability and killing range than other subordinate units.

e. **Counterreconnaissance.** The sniper team can be used as an integral part of the counterreconnaissance effort. The team can help acquire and destroy targets. It can augment the counterreconnaissance element by occupying concealed positions for long periods. It also can observe direct and indirect fires (to maintain their security) and engage targets. Selective long-range rifle fires are difficult for the enemy to detect. A few well-placed shots can disrupt enemy reconnaissance efforts, force him to deploy into combat formations, and deceive him as to the location of the main battle area. The sniper team's stealth skills counter the skills of enemy reconnaissance elements. The sniper team can be used where infantry platoon mobility is unnecessary, freeing squad designated marksmen to cover other sectors. The sniper team also can be used to direct ground maneuver elements toward detected targets. This helps to maintain their security so they can be used against successive echelons of attacking enemy.

f. **Strongpoint.** The commander employs the sniper team to support any unit defending a strongpoint. The sniper team's characteristics enable it to independently harass and observe the enemy in support of the force in the strongpoint, either from inside or outside the strongpoint.

g. **Reverse-Slope Defense.** The sniper team can provide effective long-range rifle fires from positions forward of the topographical crest or on the counterslope if the company is occupying a reverse-slope defense.

C-4. EMPLOYMENT DURING STABILITY OPERATIONS

During stability operations, US troops are usually required to use a minimal amount of force to respond to threats. Even with well-understood ROE, it may be difficult for an SBCT infantry company to respond with minimum force rather than maximum force when confronted with certain situations. The sniper team is an important tool for the company commander during stability operations.

a. During stability operations, a sniper team may perform the following:
- Conduct active or passive countersniper missions.
- Overwatch a checkpoint.
- Monitor a public gathering.
- Identify critical people in a crowd.
- Reinforce a base camp's security.
- Conduct any offensive or defensive sniper mission.

b. The sniper team provides the company commander the required minimum force (or an equal or reasonable response to force used against the company) through its precision long-range rifle fires.

c. Sniper teams also provide the company commander with a ready source of information to counter a perceived sniper threat. Through the team's understanding of sniping and sniper hiding places, it can provide the commander with invaluable

information. The company commander incorporates this information into his METT-TC analysis to develop a countersniper plan.

C-5. ACTIONS IN A BUILT-UP AREA

The unlimited use of firepower during urban operations may undermine the commander's intent. The sniper team is an incredible asset to the SBCT infantry company commander while operating in a built-up area.

a. **Offensive Operations.** Assaulting forces usually encounter fortified positions prepared by the defending force. These can range from field-expedient, hasty positions produced with locally available materials to elaborate steel and concrete emplacements complete with turrets, underground tunnels, and crew quarters. Field-expedient positions are those most often encountered. However, the company commander should expect elaborate positions when the enemy has significant time to prepare his defense. The enemy may have fortified weapons emplacements or bunkers, protected shelters, reinforced natural or constructed caves, entrenchments, and other obstacles.

(1) The enemy will try to locate these positions so they are mutually supporting and arrayed in depth across the width of his sector. The enemy also will try to increase his advantages by covering and concealing positions and by preparing direct fire plans and counterattack contingencies. Because of this, fortified areas should be bypassed and contained by a smaller force.

(2) Sniper precision fire and observation capabilities are invaluable in the assault of a built-up area. Precision rifle fire can readily detect and destroy pinpoint targets invisible to the naked eye. The sniper team's role during the assault of a fortified position is to deliver precision long-range rifle fire against the embrasures, air vents, and doorways of key enemy positions; against observation posts; and against exposed personnel. The company commander must plan the sequence in which the sniper team will destroy targets. This should systematically reduce the enemy's defenses by denying the ability of enemy positions to support each other. Once these positions are isolated, they can be more easily reduced. Therefore, the company commander must decide where he will try to penetrate the enemy's fortified positions and then employ his sniper team against those locations. The sniper team can provide continuous fire support for both assaulting and other nearby units when operating from positions near the breach point on the flanks. Its precision rifle fires add to the effectiveness of the entire company. Frequently, when various factors prevent the use of other precision weapons, such as Javelins, snipers are still useful.

(3) The sniper team plans based on information available. The enemy information needed by a sniper team includes the following:

- Extent of and exact locations of individual and underground fortifications.
- Fields of fire, directions of fire, number and locations of embrasures, and types of weapons systems in the fortifications.
- Locations of entrances, exits, and air vents in each emplacement and building.
- Locations and types of existing and reinforcing obstacles.
- Locations of weak spots in the enemy's defense.

b. **Defensive Operations.** The sniper precision-fire and observation capabilities are equally invaluable in the defense of a built-up area. As in the offense, the sniper team detects and destroys targets that are invisible to the naked eye. The company commander

generally positions the sniper team to observe or control one or more avenues of approach into the built-up area. This focus generally is on secondary avenues of approach. This employment option allows the commander to concentrate the majority of his combat power against the enemy's most likely avenue of approach while still having a formidable force on the secondary avenue of approach. The company commander can also position the sniper team and the squad designated marksmen to support or complement each other. Finally, the company commander can employ the sniper team to independently harass and observe the enemy in support of the company's mission.

APPENDIX D
TLP-MDMP INTEGRATION

The troop-leading procedures are integrally coupled and consistent with the military decision-making process described in FM 101-5. The two processes are not identical, however, because the specific steps of the MDMP are designed to help commanders and their staffs develop a plan. While company commanders have subordinate leaders who assist with aspects of planning operations, these leaders are not company staff officers. The TLP reflect this reality while incorporating the general process of the MDMP.

D-1. LINKING THE TLP AND MDMP.

The troop-leading procedures are a sequence of actions that enable the company commander to use available time effectively in the preparation and execution of company missions. They are tools to assist the company commander in making decisions, issuing combat orders, and supervising operations. The MDMP and TLP are linked by information sharing and flow. The type, amount, and timeliness of the information from battalion to company directly impact the company commander's TLP. FM 101-5 describes a process in which the company commander receives three battalion warning orders prior to the battalion OPORD being issued. This is situationally dependent. All staffs in all situations may not follow the MDMP steps as listed in FM 101-5 for a variety of reasons (such as time, experience level, tactical situation, and so on). However, as a guide, the company TLP must be inextricably linked to the information flow from the next higher headquarters.

D-2. PARALLEL AND COLLABORATIVE PLANNING

Parallelism and collaboration are inherent planning concepts in both the MDMP and TLP. They ultimately provide the important linkage between the planning processes. Concurrent effort and sharing of information are critical to the company commander's efficient, effective planning and the company's successful mission accomplishment. Figure D-1, page D-2, depicts the importance of parallelism and collaboration between the MDMP (battalion) and the TLP (company), with references to specific paragraphs in the OPORD.

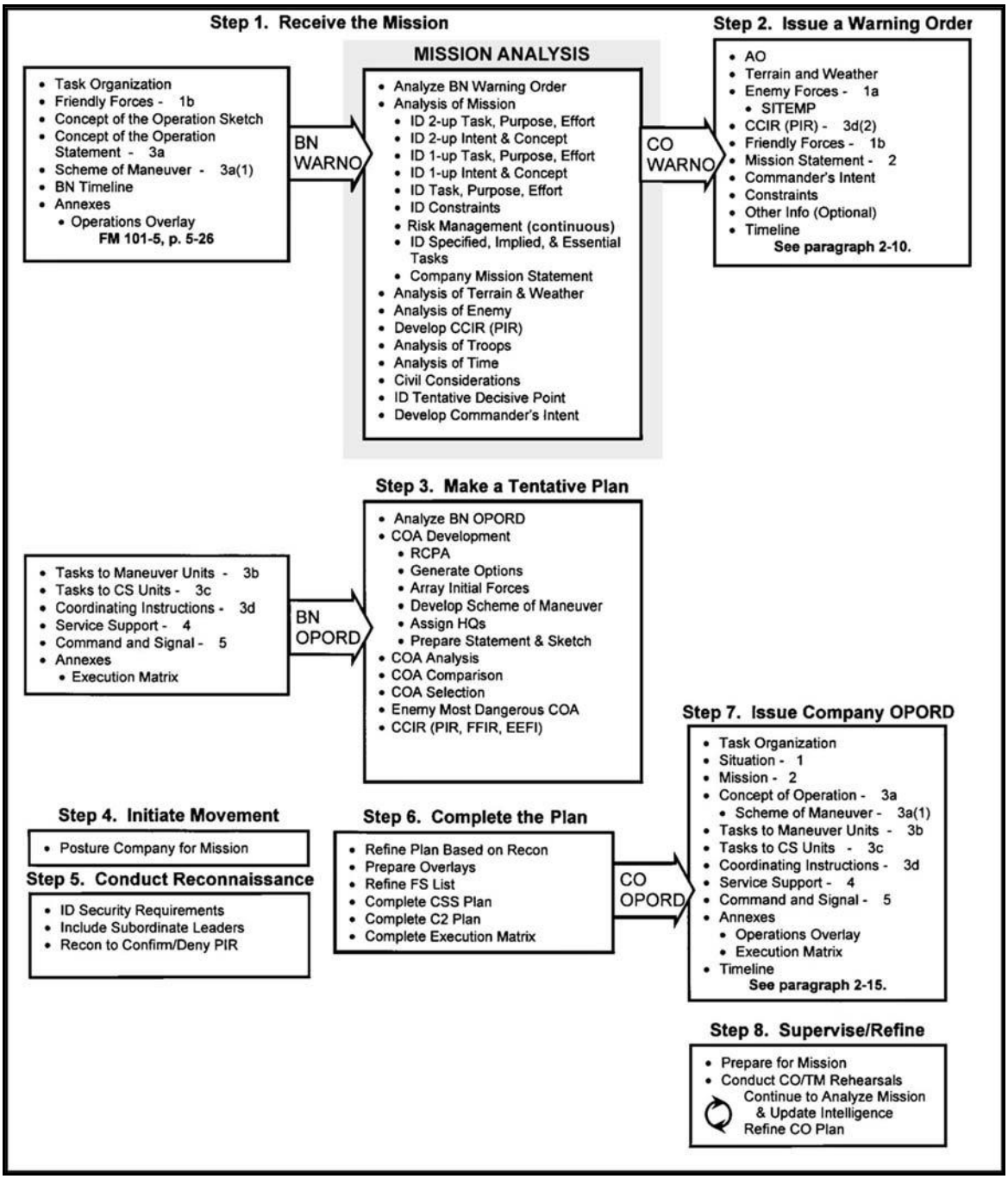


Figure D-1. TLP inputs.

APPENDIX E
RISK MANAGEMENT

Risk is the chance of injury or death for individuals and damage to or loss of vehicles and equipment. Risk, or the potential for risk, is always present in every combat and training situation the SBCT company commander faces. Risk management must take place at all levels of the chain of command during each phase of every operation; it is an integral part of all tactical planning. The company commander, platoon leaders, NCOs, and all other soldiers must know how to use risk management, coupled with fratricide avoidance measures, to ensure that the mission is executed in the safest possible environment within mission constraints.

The primary objective of risk management is to help units protect their combat power through accident prevention, enabling them to win the battle quickly and decisively with minimal losses. This appendix outlines the process leaders use to identify hazards and implement a plan to address each identified hazard. It also discusses the responsibilities of the company's leaders and individual soldiers in implementing a sound risk management program. For additional information on risk management, refer to FM 100-14.

Section I. RISK MANAGEMENT PROCEDURES

This section outlines the five steps of risk management. A company commander should never approach risk management with "one size fits all" solutions to the hazards the company will face. Rather, in performing the steps, he must keep in mind the essential tactical and operational factors that make each situation unique.

E-1. STEP 1, IDENTIFY HAZARDS

A hazard is a source of danger. It is any existing or potential condition that could entail injury, illness, or death of personnel; damage to or loss of equipment and property; or some other sort of mission degradation. Tactical and training operations pose many types of hazards. The company leadership must identify the hazards associated with all aspects and phases of the company mission, paying particular attention to the factors of METT-TC. Risk management must never be an afterthought; leaders must begin the process during their troop-leading procedures and continue it throughout the operation. Table E-1, page E-2, lists possible sources of battlefield hazards that the unit might face during a typical tactical operation. The list is organized according to the factors of METT-TC.

MISSION • Duration of the operation. • Complexity/clarity of the plan. (Is the plan well-developed and easily understood?) • Proximity and number of maneuvering units.
ENEMY • Knowledge of the enemy situation. • Enemy capabilities. • Availability of time and resources to conduct reconnaissance.
TERRAIN AND WEATHER • Visibility conditions, including light, dust, fog, and smoke. • Precipitation and its effect on mobility. • Extreme heat or cold. • Additional natural hazards (broken ground, steep inclines, water obstacles).
TROOPS • Equipment status. • Experience the units conducting the operation have working together. • Danger areas associated with the unit's weapon systems. • Soldier/leader proficiency. • Soldier/leader rest situation. • Degree of acclimatization to environment. • Impact of new leaders or crewmembers. • Friendly unit situation. • NATO or multinational military actions combined with U.S. forces.
TIME AVAILABLE • Time available for troop-leading procedures and rehearsals by subordinates. • Time available for PCCs/PCIs.
CIVIL CONSIDERATIONS • Applicable ROE or ROI. • Potential stability and support operations involving contact with civilians (such as NEOs, refugee or disaster assistance, or counterterrorism). • Potential for media contact and inquiries. • Interaction with host nation or other participating nation support.

Table E-1. Examples of potential hazards.

E-2. STEP 2, ASSESS HAZARDS TO DETERMINE RISKS

Hazard assessment is the process of determining the direct impact of each hazard on an operation (in the form of hazardous incidents). Use the following steps.

a. Determine hazards that can be eliminated or avoided.

b. Assess each hazard that cannot be eliminated or avoided to determine the probability that the hazard can occur.

c. Assess the severity of hazards that cannot be eliminated or avoided. Severity, defined as the result or outcome of a hazardous incident, is expressed by the degree of injury or illness (including death), loss of or damage to equipment or property, environmental damage, or other mission-impairing factors (such as unfavorable publicity or loss of combat power).

d. Taking into account both the probability and severity of a hazard, determine the associated risk level (extremely high, high, moderate, and low). Table E-2 summarizes the four risk levels.

e. Based on the factors of hazard assessment (probability, severity, and risk level, as well as the operational factors unique to the situation), complete the risk management worksheet. Figure E-1 shows a completed risk management worksheet.

RISK LEVEL	MISSION EFFECTS
Extremely High (E)	Mission failure if hazardous incidents occur in execution.
High (H)	Significantly degraded mission capabilities in terms of required mission standards. Not accomplishing all parts of the mission or not completing the mission to standard (if hazards occur during mission).
Moderate (M)	Expected degraded mission capabilities in terms of required mission standards. Reduced mission capability (if hazards occur during the mission).
Low (L)	Expected losses have little or no impact on mission success.

Table E-2. Risk levels and impact on mission execution.

A. Mission or Task:	B. Date/Time Group	C: Date Prepared:
Conduct a deliberate attack	**Begin:** 010035R May XX **End:** 010600R May XX	29 April XX

D. Prepared By: (Rank, Last Name, Duty Position) CPT Smith, Cdr

E. Task	F. Identify Hazard	G. Assess Hazard	H. Develop Controls	I. Determine Residual Risk	J. Implement Controls (How To)
Conduct obstacle breaching operations	Obstacles	High (H)	Develop and use obstacle reduction plan	Low (L)	Unit TSOP, OPORD, training handbook
	Inexperienced soldiers	High (H)	Additional training and supervision	Moderate (M)	Rehearsals, additional training
	Operating under limited visibility	Moderate (M)	Use NVDs, use IR markers on vehicles	Low (L)	Unit TSOP, OPORD
	Steep cliffs	High (H)	Rehearse using climbing ropes	Moderate (M)	FM 3-97.6, Mountain Operations; TC 90-6-1, Mountaineering
	Insufficient planning time	High (H)	Plan and prepare concurrently	Moderate (M)	OPORD, troop-leading procedures

K. Determine overall mission/task risk level after controls are implemented (circle one)

LOW (L) **MODERATE (M)** HIGH (H) EXTREMELY HIGH (E)

Figure E-1. Completed risk management worksheet.

E-3. STEP 3, DEVELOP CONTROLS AND MAKE RISK DECISIONS

This step is accomplished in two substeps: develop controls and make risk decisions. These substeps are accomplished during the "make a tentative plan" step of the troop-leading procedures.

a. **Developing Controls.** After assessing each hazard, develop one or more controls that will either eliminate the hazard or reduce the risk (probability, severity, or both) of potential hazardous incidents. When developing controls, consider the reason for the hazard, not just the hazard by itself.

b. **Making Risk Decisions.** A key element in the process of making a risk decision is determining whether accepting the risk is justified or, conversely, is unnecessary. The decision-maker must compare and balance the risk against mission expectations. He alone decides if the controls are sufficient and acceptable and whether to accept the resulting residual risk. If he determines the risk is unnecessary, he directs the development of additional controls or alternative controls; as another option, he can modify, change, or reject the selected COA for the operation.

E-4. STEP 4, IMPLEMENT CONTROLS

Controls are the procedures and considerations the unit uses to eliminate hazards or reduce their risk. Implementing controls is the most important part of the risk management process; this is the chain of command's contribution to the safety of the unit. Implementing controls includes coordination and communication with appropriate superior, adjacent, and subordinate units and with individuals executing the mission. The company commander must ensure that specific controls are integrated into operations plans (OPLANs), OPORDs, SOPs, and rehearsals. The critical check for this step is to ensure that controls are converted into clear, simple execution orders understood by all levels. If the leaders have conducted a thoughtful risk assessment, the controls will be easy to implement, enforce, and follow. Examples of risk management controls include the following:

- Thoroughly brief all aspects of the mission, including related hazards and controls.
- Conduct thorough PCCs and PCIs.
- Allow adequate time for rehearsals at all levels.
- Drink plenty of water, eat well, and get as much sleep as possible (at least 4 hours in any 24-hour period).
- Use buddy teams.
- Enforce speed limits, use of seat belts, and driver safety.
- Establish recognizable visual signals and markers to distinguish maneuvering units.
- Enforce the use of ground guides in assembly areas and on dangerous terrain.
- Establish marked and protected sleeping areas in assembly areas.
- Limit single-vehicle movement.
- Establish SOPs for the integration of new personnel.

E-5. STEP 5, SUPERVISE AND EVALUATE

During mission execution, leaders must ensure that risk management controls are properly understood and executed. Leaders must continuously evaluate the unit's effectiveness in managing risks to gain insight into areas that need improvement.

a. **Supervision.** Leadership and unit discipline are the keys to ensuring that effective risk management controls are implemented.

(1) All leaders are responsible for supervising mission rehearsals and execution to ensure standards and controls are enforced. In particular, NCOs must enforce established safety policies as well as controls developed for a specific operation or task. Techniques include spot checks, inspections, situation reports (SITREPs), confirmation briefs, buddy checks, and close supervision.

(2) During mission execution, leaders must continuously monitor risk management controls, both to determine whether they are effective and to modify them as necessary. Leaders must also anticipate, identify, and assess new hazards. They ensure that imminent danger issues are addressed on the spot and that ongoing planning and execution reflect changes in hazard conditions.

b. **Evaluation.** Whenever possible, the risk management process should also include an after-action review (AAR) to assess unit performance in identifying risks and preventing hazardous situations. During an AAR, leaders should assess whether the implemented controls were effective. Following the AAR, leaders should incorporate lessons learned from the process into unit SOPs and plans for future missions.

Section II. IMPLEMENTATION RESPONSIBILITIES

Leaders and individuals at all levels are responsible and accountable for managing risk. They must ensure that hazards and associated risks are identified and controlled during planning, preparation, and execution of operations. The company leadership and their senior NCOs must look at both tactical risks and accident risks. The same risk management process is used to manage both types of risk. The commander alone determines how and where he is willing to take tactical risks. The commander manages accident risks with the assistance of his officers, NCOs, and individual soldiers.

E-6. BREAKDOWN OF THE RISK MANAGEMENT PROCESS

Despite the need to advise higher headquarters of a risk taken or about to be assumed, the risk management process may break down. Such a failure can be the result of several factors; most often, it can be attributed to one or more of the following:

- The risk denial syndrome in which leaders do not want to know about the risk.
- A soldier who believes that the risk decision is part of his job and does not want to bother his unit leadership.
- Outright failure to recognize a hazard or the level of risk involved.
- Overconfidence on the part of an individual or the unit in being able to avoid or recover from a hazardous incident.
- Subordinates who do not fully understand the higher commander's guidance regarding risk decisions.

E-7. RISK MANAGEMENT COMMAND CLIMATE

The company commander gives the company direction, sets priorities, and establishes the command climate (values, attitudes, and beliefs). Successful preservation of combat power requires him to embed risk management into individual behavior. To fulfill this commitment, the company commander must exercise creative leadership, innovative planning, and careful management. Most importantly, he must demonstrate support for the risk management process.

a. The chain of command can establish a command climate favorable to risk management integration by taking the following actions:

- Demonstrate consistent and sustained risk management behavior through leadership by example and emphasis on active participation throughout the risk management process.
- Provide adequate resources for risk management. Every leader is responsible for obtaining the assets necessary to mitigate risk and for providing them to subordinate leaders.
- Understand your own and your soldiers' limitations, as well as your unit's capabilities.
- Allow subordinates to make mistakes and learn from them.
- Prevent a "zero defects" mindset from creeping into the unit's culture.
- Demonstrate full confidence in subordinates' mastery of their trade and their ability to execute a chosen COA.
- Keep subordinates informed.
- Listen to subordinates.

b. For the company leadership, its subordinate leaders, and individual soldiers, responsibilities in managing risk include the following:

- Make informed risk decisions. Establish and then clearly communicate risk decision criteria and guidance.
- Establish clear, feasible risk management policies and goals.
- Train the risk management process. Ensure that subordinates understand the who, what, when, where, and why of managing risk and how these factors apply to their situation and assigned responsibilities.
- Accurately evaluate the company's effectiveness, as well as subordinates' execution of risk controls during the mission.
- Inform higher headquarters when risk levels exceed established limits.

APPENDIX F
FRATRICIDE AVOIDANCE

Fratricide is defined as the employment of friendly weapons that results in the unforeseen and unintentional death or injury of friendly personnel or damage to friendly equipment. Fratricide prevention is the SBCT company commander's responsibility. All leaders across all operating systems assist the company commander in accomplishing this mission. This appendix focuses on actions the unit leadership can take with current resources to reduce the risk of fratricide.

In any tactical situation, it is critical that every company member know where he is and where other friendly elements are operating. With this knowledge, he must anticipate dangerous conditions and take steps either to avoid them or to mitigate them. The company leadership must always be vigilant of changes and developments in the situation that may place his sections and teams in danger. He must also ensure that all squad and team positions are constantly reported to higher headquarters so that all other friendly elements are aware of where they are and what they are doing. When the company leader perceives a potential fratricide situation, he personally must use the higher net to coordinate directly with the friendly element involved.

F-1. EFFECTS

Fratricide results in unacceptable losses and increases the risk of mission failure; it almost always affects the unit's ability to survive and function. Units experiencing fratricide suffer these consequences:

- Loss of confidence in the unit's leadership.
- Increasing self-doubt among leaders.
- Hesitancy in the employment of supporting combat systems.
- Over-supervision of units.
- Hesitancy in the conduct of night operations.
- Loss of aggressiveness in maneuver.
- Loss of initiative.
- Disrupted operations.
- General degradation of unit cohesiveness, morale, and combat power.

F-2. CAUSES

The following paragraphs discuss the primary causes of fratricide. Leaders must identify any of the factors that may affect their units and then strive to eliminate or correct them.

a. **Failures in the Direct Fire Control Plan.** These occur when units do not develop effective fire control plans, particularly in the offense. Units may fail to designate engagement areas or to adhere to the direct fire plan, or they may position their weapons incorrectly. Under such conditions, fire discipline often breaks down upon contact. An area of particular concern is the additional planning that must go into

operations requiring close coordination between mounted elements and dismounted teams.

b. **Land Navigation Failures.** Units often stray out of assigned sectors, report wrong locations, and become disoriented. Much less frequently, they employ fire support weapons in the wrong location. In either type of situation, units that unexpectedly encounter another unit may fire their weapons at a friendly force.

c. **Failures in Combat Identification.** Vehicle commanders and machine gun crews cannot accurately identify the enemy near the maximum range of their systems. In limited visibility, friendly units within that range may mistake one another as the enemy.

d. **Inadequate Control Measures.** Units may fail to disseminate the minimum necessary maneuver control measures and direct fire control measures. They may also fail to tie control measures to recognizable terrain or events. As the battle develops, the plan cannot address branches and sequels as they occur. When this happens, synchronization fails.

e. **Failures in Reporting and Communications.** Units at all levels may fail to generate timely, accurate, and complete reports as locations and tactical situations change. This distorts the common operating picture at battalion and brigade level (available on FBCB2) and can lead to erroneous clearance of fires.

f. **Weapons Errors.** Lapses in individual discipline can result in fratricide. These incidents include charge errors, accidental discharges, mistakes with explosives and hand grenades, and use of incorrect gun data.

g. **Battlefield Hazards.** A variety of explosive devices and materiel may create danger on the battlefield: unexploded ordnance, booby traps, and unmarked or unrecorded minefields, including scatterable mines. Failure to mark, record, remove, or otherwise anticipate these threats leads to casualties.

h. **Reliance on Instruments.** A unit that relies too heavily on systems such as GPS devices or FBCB2 will find its capabilities severely degraded if these systems fail. The unit may be unable to maintain situational understanding due to the loss of the computer generated COP and positional awareness. To prevent potential dangers when system failure occurs, the company commander must ensure that he and his subordinate leaders use a balance of technology with traditional basic soldier skills in observation, navigation, and other critical activities.

F-3. PREVENTION

The measures outlined in this paragraph provide the company with a guide to actions it can take to reduce or prevent fratricide risk. These guidelines are not intended to restrict initiative. Leaders must learn to apply them as appropriate, based on the specific situation and the factors of METT-TC.

a. **Principles.** At the heart of fratricide reduction and prevention are five key principles:

(1) ***Identify and Assess Potential Fratricide Risks during the Troop-Leading Procedures.*** Incorporate risk reduction control measures in WARNOs, the OPORD, and applicable FRAGOs.

(2) ***Maintain Situational Understanding.*** Focus on areas such as current intelligence, unit locations and dispositions, obstacles, NBC contamination, SITREPs, and the factors

of METT-TC. An SBCT company gains an advantage in situational understanding with FBCB2, which automatically updates the COP.

(3) ***Ensure Positive Target Identification.*** Review vehicle and weapons identification cards. Become familiar with the characteristics of potential friendly and enemy vehicles, including their silhouettes and thermal signatures. This knowledge should include the conditions, including distance (range) and weather, under which positive identification of various vehicles and weapons is possible. Enforce the use of challenge and password, especially during dismounted operations.

(4) ***Maintain Effective Fire Control.*** Ensure fire commands are accurate, concise, and clearly stated. Make it mandatory for soldiers to ask for clarification of any portion of the fire command that they do not completely understand. Stress the importance of the chain of command in the fire control process and ensure soldiers get in the habit of obtaining target confirmation and permission to fire from their leaders before engaging targets they assume are enemy elements. Know who will be in and around the area of operations.

(5) ***Establish a Command Climate that Emphasizes Fratricide Prevention.*** Enforce fratricide prevention measures, placing special emphasis on the use of doctrinally sound techniques and procedures. Ensure constant supervision in the execution of orders and in the performance of all tasks and missions to standard.

b. **Guidelines and Considerations.** Additional guidelines and considerations for fratricide reduction and prevention include the following.

(1) Recognize the signs of battlefield stress. Maintain unit cohesion by taking quick, effective action to alleviate stress.

(2) Conduct individual, leader, and collective (unit) training covering fratricide awareness, target identification and recognition, and fire discipline.

(3) Develop a simple, executable plan.

(4) Give complete and concise operation orders. Include all appropriate recognition signals in paragraph 5 of the OPORD.

(5) To simplify operation orders, use SOPs that are consistent with doctrine. Periodically review and update SOPs as needed.

(6) Strive to provide maximum planning time for leaders and subordinates.

(7) Use common language (vocabulary) and doctrinally correct standard terminology and control measures.

(8) Ensure thorough coordination is conducted at all levels.

(9) Plan for and establish effective communications.

(10) Plan for collocation of CPs whenever it is appropriate to the mission, such as during a passage of lines.

(11) Make sure ROE are clear.

(12) Conduct rehearsals whenever the situation allows adequate time to do so.

(13) Be in the right place at the right time. Use position location and navigation devices (GPS or POSNAV), know your location and the locations of adjacent units (left, right, leading, and follow-on), and synchronize tactical movement. If the company or any element becomes lost, its leader must know how to contact higher headquarters immediately for instructions and assistance.

(14) Establish, execute, and enforce strict sleep and rest plans.

APPENDIX G

ROAD MARCHES AND ASSEMBLY AREAS

When not in contact with the enemy, the SBCT infantry company may have to move long distances to position itself for future operations. This type of movement, called a road march, is planned at company and battalion levels. An assembly area, either the initial assembly area before movement begins or the forward assembly area following the move, is a site at which the unit gathers to prepare for future operations. Preparation activities include receiving and issuing orders, servicing and repairing vehicles, receiving and issuing supplies, and taking care of the personal needs of members of the SBCT infantry company.

Section I. TACTICAL ROAD MARCH

The main purpose of the road march is to relocate rapidly, not to gain contact. It is conducted using fixed speeds and timed intervals. This section examines tactical procedures and considerations for the road march.

G-1. MARCH COLUMNS

The following paragraphs outline the three primary road march techniques. The SBCT infantry company usually executes a road march in column formation.

a. **Open Column.** The open column technique is normally used for daylight marches, though it can be used at night with blackout lights or thermal vision equipment. The distance between vehicles varies, normally from 50 meters to 200 meters, depending on light and weather conditions.

b. **Closed Column.** The closed column technique is normally used for marches conducted during periods of limited visibility. The distance between vehicles is based on the ability to see the vehicle ahead; it is normally less than 50 meters.

c. **Infiltration.** The infiltration technique involves the movement of small groups of personnel or vehicles at irregular intervals. It is used when sufficient time and suitable routes are available and when maximum security, deception, and dispersion are desired. Of the three road march techniques, infiltration provides the best possible passive defense against enemy observation and detection.

G-2. PLANNING CONSIDERATIONS

Standard tasks the SBCT infantry company commander (and subordinate leaders, as necessary) may perform prior to a tactical road march include the following:

- Designate a marshaling area to organize the march column and conduct final inspections and briefings.
- Conduct a METT-TC analysis to determine the enemy situation, including the probability of air or ground attack.
- Establish detailed security measures.
- Designate the movement route, including the start point (SP), required checkpoints, and the RP. Additional control measures the company may need to identify include critical areas, defiles, choke points, rest and maintenance stops, and danger areas.

- Organize, brief, and dispatch the quartering party.
- Specify march speed, movement formations, vehicle and serial intervals, catch-up speed, lighting, and times of critical events.
- Plan for indirect fire support and contingency actions, and rehearse actions on contact. Contingency plans should cover vehicle breakdowns, lost vehicles, and accidents.
- Coordinate for CSS, including refueling, mess operations, vehicle recovery, local police assistance, and medical evacuation.

G-3. QUARTERING PARTY

Whether the SBCT infantry company conducts the road march independently or as part of a battalion or task force, it normally sends out a quartering party to assist it in moving to and occupying a new assembly area. Dispatched prior to the departure of the main body, the SBCT infantry company quartering party assists the battalion quartering party in reconnoitering the route of march. It then conducts its own reconnaissance of the feeder route from the RP to the proposed assembly area and of the assembly area itself. If either the route or the assembly area proves unsatisfactory, the quartering party recommends changes to the SBCT infantry company commander.

NOTE: If the SBCT battalion does not send a quartering party, the SBCT company party assumes sole responsibility for reconnoitering the route of march from SP to RP.

Once the road march begins, members of the quartering party serve as guides along the feeder route and in the assembly area. The size and composition of the party usually is dictated by unit SOP, although it can be adjusted based on specific tactical requirements. Refer to Section II of this appendix for a more detailed discussion of quartering party duties and procedures.

G-4. CONTROL MEASURES

The SBCT infantry company commander uses the control measures discussed in the following paragraphs to assist in controlling the company during the road march.

a. **Graphics.** Road march graphics should include, at a minimum, the SP, the RP, and the route.

(1) ***Start Point.*** The SP location represents the beginning of the road march route. It should be located on easily recognizable terrain. It is far enough away from the company's initial position to allow individual elements to organize into the march formation at the appropriate speed and interval. The SBCT infantry company commander should determine the time required to move to the SP. This will help the company arrive at the SP at the time designated in the SBCT infantry battalion OPORD and to continue movement onto the route of march without stopping.

(2) ***Release Point.*** The RP marks the end of the route of march. It is also located on easily recognizable terrain. Elements do not halt at the RP. They continue to their respective positions with assistance from guides, waypoints, and other graphic control measures.

(3) ***Route.*** The route is the path of travel connecting the SP and RP.

b. **Digital Overlays.** Digital overlays, which serve as a backup to maps with overlays, can provide valuable assistance for digitally equipped units. They display waypoints and other information concerning unit locations along the route of march that can assist the units in navigating accurately. When employing analog units with SBCT units, leaders must coordinate arrangements to prevent loss of combat efficiency.

c. **Critical Points.** Critical points are locations along the route of march where terrain or other factors may interfere with movement or where timing is critical. They are represented using checkpoints. The SP, RP, and all checkpoints are considered critical points.

d. **Strip Maps.** A strip map can assist in navigation. It should include the SP, RP, checkpoints, marshaling areas, and refuel on the move (ROM) sites; it also lists the distances between these points. Detailed "blowup" sketches should be used for marshaling areas, locations of scheduled halts, ROM sites, and other places where confusion is likely to occur. Strip maps are included as an annex to the movement order; if possible, all vehicle drivers should receive a copy.

e. **Visual Signals.** Regardless of whether it is analog or digital, when observing radio silence during a road march, the unit may use hand-and-arm signals, flags, and lights as the primary means of passing information between vehicles and moving units.

f. **Traffic Control.** The headquarters controlling the march may post road guides and traffic signs at designated traffic control points (TCPs). At critical points, guides assist in creating a smooth flow of traffic along the march route. Military police, members of the SBCT battalion reconnaissance platoon, or designated elements from the quartering party may serve as guides. They should have equipment or markers that allow march elements to identify them in darkness or other limited visibility conditions. There is normally an RP for every echelon of command conducting the road march (that is, there is an SBCT battalion RP followed by an SBCT infantry company RP). Traffic problems may arise if actions at each of these points are not well-rehearsed.

G-5. ACTIONS DURING THE MARCH

The following considerations apply during the conduct of the march.

a. **Movement to the SP.** The SBCT infantry company must arrive at the SP at the time designated in the SBCT battalion OPORD. The company commander may need to designate a marshaling area in which the quartering party and the main body can organize their march columns and conduct final inspections and briefings before movement. If the situation dictates, units may move directly to the column from their current positions. To avoid confusion during the initial movement, leaders of all company elements should conduct a reconnaissance of the route to the SP, issue clear movement instructions, and conduct thorough rehearsals, paying particular attention to signals and timing.

b. **Orientation.** Every vehicle in the formation has an assigned sector of orientation. Each vehicle commander should assign sectors of observation to crewmen to achieve 360-degree observation.

c. **Halts.** While taking part in a road march, the SBCT infantry company must be prepared to conduct both scheduled and unscheduled halts. Security during halts normally involves a combination of dispersion, weapons orientation, clearance of terrain that dominates the route of march, and employment of infantry squads to secure danger areas.

(1) ***Scheduled Halts.*** Scheduled halts are conducted to permit maintenance, refueling, and personal relief activities and to allow other traffic to pass.

(a) The movement order establishes the time and duration of scheduled halts. Unit SOP specifies actions to be taken during halts, but the first priority must always be to establish and maintain local security. A maintenance halt of 15 minutes is usually scheduled after the first hour of the march, with a 10-minute halt every two hours thereafter.

(b) During long marches, the unit may conduct a ROM operation. The composition of the ROM site depends both on OPSEC considerations and on the refueling capability of assets at the ROM site. The OPORD specifies the amount of fuel or the amount of time at the pump for each vehicle. It also gives instructions for OPSEC at the ROM site and at the staging area to which vehicles move after refueling.

(2) ***Unscheduled.*** The SBCT infantry company conducts unscheduled halts when the unit encounters unexpected obstacles or contaminated areas or when a disabled vehicle temporarily blocks the route.

(a) When an unscheduled halt occurs, each vehicle commander sends a messenger to the vehicle to his front. The messenger obtains (or, if applicable, provides) information on the reason for the halt and on required follow-on actions. The movement commander then takes any further actions required to determine and or eliminate the cause of the halt.

(b) A disabled vehicle must not obstruct traffic for lengthy periods. The crew should move the vehicle off the road immediately, report its status, establish security, and post guides to direct traffic. If possible, the crew repairs the vehicle and rejoins the rear of the column. Vehicles that drop out of the column should return to their original positions only when the column has halted. Until then, they move at the rear just ahead of the trail element, which usually is made up of the security element and assets designated to recover company vehicles. Assistance for recovery and repair of broken or damaged equipment is received from the CRT attached to the battalion. (The XO normally handles security if he is not part of the quartering party). If the crew cannot repair the vehicle, the trail element or CRT recovers it.

G-6. ACTIONS ON CONTACT

If enemy contact occurs during the road march, the SBCT infantry company executes actions on contact as described in Chapter 4 of this manual.

G-7. ACTIONS AT THE RP

The SBCT infantry company moves through the battalion RP without stopping. The company's guide picks up the unit there and guides it to the company RP. Each SBCT platoon then picks up its assigned guide and follows his signals to its position in the assembly area. Depending on terrain and the equipment available (GPS or POSNAV), guides and marking materials may be posted at or near exact vehicle locations. (Assembly areas procedures are covered in the following section.)

Section II. ASSEMBLY AREAS

An assembly area is a site at which maneuver units prepare for future operations. A well-planned assembly area has the following characteristics:

- Concealment from enemy ground and air observation.
- A location on defensible terrain.
- Good drainage and a surface that can support tracked and wheeled vehicles.
- Suitable entrances, exits, and internal roads or trails.
- Sufficient space for dispersion of vehicles and equipment.

G-8. QUARTERING PARTY OPERATIONS

Normally, the SBCT infantry company employs a quartering party (also known as an advance party) to assist in the occupation of an assembly area. The quartering party is established in accordance with battalion or company SOP; for example, it may consist of one vehicle per platoon along with a vehicle from the headquarters section. The company XO, 1SG, or a senior NCO normally leads the quartering party. The quartering party's actions in preparing the assembly area include the following:

- Reconnoiter for enemy forces and NBC contamination.
- Evaluate the condition of the route to the assembly area and the suitability of the area itself (drainage, space, and internal routes). If the area is unsatisfactory, the quartering party requests permission from the SBCT infantry company commander to find a new location.
- Organize the area based on the SBCT battalion commander's guidance; designate and mark tentative locations for platoons, CP vehicles, and trains.
- Improve and mark entrances, exits, and internal routes.
- Mark bypasses or remove obstacles (within the party's capabilities).
- Mark tentative vehicle locations.

G-9. OCCUPATION OF THE ASSEMBLY AREA

Once the AA is prepared, the quartering party awaits the arrival of the SBCT infantry company, maintaining surveillance and providing security of the area within its capabilities.

a. Quartering party members guide the company as a whole from the battalion RP to the company RP. They then guide individual elements from the company RP to their individual locations in the AA. SOPs and prearranged signals and markers (for day or night occupation) should be used to assist vehicle commanders in finding their positions. The key consideration is to move quickly, both to clear the route for other units and to assume designated positions in the AA.

b. The SBCT infantry company may occupy the AA as an independent element or as part of a battalion (Figure G-1, page G-6). In either situation, the SBCT infantry company occupies its positions upon arrival using the procedures for hasty occupation of a BP. The company commander establishes local security and coordinates with adjacent units. He assigns weapons orientation and a sector of responsibility for each platoon and subordinate element. If the company occupies the AA alone, it establishes a perimeter defense.

Figure G-1. SBCT infantry company assembly area example.

G-10. ACTIONS IN THE ASSEMBLY AREA

Following occupation, the SBCT infantry company and its individual elements can prepare for future operations by conducting troop-leading procedures and priorities of work in accordance with battalion and company OPORDs. These preparations include the following:

- Establish and maintain security (at the appropriate REDCON level).
- Employ infantry squads to implement security measures as necessary, including protection against enemy infiltration.
- Conduct TLP.
- Perform maintenance on vehicles and communications equipment.
- Verify weapons system status and conduct test firing and other necessary preparations. (The SBCT infantry company normally must coordinate test-firing activities with its higher headquarters.)
- Conduct resupply operations, including refueling and rearming.
- Conduct rehearsals and other training for upcoming operations.
- Conduct PCCs and PCIs based on time available.
- Adjust SBCT infantry company task organization as necessary.

- Account for company personnel and assigned sensitive items.
- Reestablish vehicle load plans.

APPENDIX H

DIRECT FIRE PLANNING AND CONTROL

Suppressing or destroying the enemy with direct fires is fundamental to success in close combat. Effective direct fires are the unique contribution of maneuver forces to the combined arms team, and fire and movement are complementary components of maneuver. The SBCT infantry company commander must effectively plan to focus, distribute, and shift the overwhelming mass of his direct fire capability at critical locations and times to be successful on the battlefield. These resources include dismounted infantry, ICVs, and MGS vehicles. Effective and efficient fire control means that the company acquires the enemy rapidly and masses the effects of direct fires to achieve decisive results in the close fight.

Section I. PRINCIPLES OF DIRECT FIRE CONTROL

When planning and executing direct fires, the SBCT infantry company commander and subordinate leaders must know how to apply several fundamental principles. The purpose of these direct fire control principles is not to restrict the actions of subordinates, but to help the company accomplish the primary goal of any direct fire engagement: to eliminate the enemy by acquiring first and shooting first. Applied correctly, these principles give subordinates the freedom to respond rapidly upon acquisition of the enemy. This discussion focuses on the following principles:

- Mass the effects of fire.
- Destroy the greatest threat first.
- Avoid target overkill.
- Employ the best weapon for the target.
- Minimize friendly exposure.
- Prevent fratricide.
- Plan for extreme limited visibility conditions.
- Develop contingencies for diminished capabilities.

H-1. MASS THE EFFECTS OF FIRE

The SBCT infantry company must mass its direct fires to achieve decisive results. Massing entails focusing direct fires at critical points and distributing the effects. Random application of fires is unlikely to have a decisive effect. For example, concentrating the company's fires at a single target may ensure its destruction or suppression; however, that fire control option will fail to achieve the decisive effect on the enemy formation or position.

H-2. DESTROY THE GREATEST THREAT FIRST

The order in which the SBCT infantry company engages enemy forces is in direct relation to the danger these forces present. The threat posed by the enemy depends on his weapons, range, and positioning. Presented with multiple targets, a unit must initially

concentrate direct fires to destroy the greatest threat, then distribute fires over the remainder of the enemy force.

H-3. AVOID TARGET OVERKILL

Use only the amount of fire required to achieve necessary effects. Target overkill wastes ammunition and is not tactically sound. To the other extreme, the company cannot have every weapon engage a different target because the requirement to destroy the greatest threats first remains paramount.

H-4. EMPLOY THE BEST WEAPON FOR THE TARGET

Using the appropriate weapon for the target increases the probability of rapid enemy destruction or suppression; at the same time, it conserves ammunition. The SBCT infantry company has many weapons with which to engage the enemy. Target type, range, and exposure are key factors in determining the weapon and ammunition that should be employed, as are weapons and ammunition availability and desired target effects. Additionally, a leader must consider more than only the capabilities of dismounted infantry squads and ICVs. He also must determine how to best employ his MGS platoon. The company commander arrays his forces based on the terrain, enemy, and desired effects of all of his available direct fires. As an example, when he expects an enemy dismounted assault in restricted terrain, the company commander employs his dismounted infantry squads, taking advantage of their ability to engage numerous, fast-moving dismounted targets.

H-5. MINIMIZE FRIENDLY EXPOSURE

Units increase their survivability by exposing themselves to the enemy only to the extent necessary to engage him effectively. Natural or manmade defilade provides the best cover from ATGMs and other large caliber direct fire munitions. Dismounted infantry and vehicles minimize their exposure by constantly seeking effective available cover, attempting to engage the enemy from the flank, remaining dispersed, firing from multiple positions, and limiting engagement times.

H-6. PREVENT FRATRICIDE

The company commander must be proactive in reducing the risk of fratricide and noncombatant casualties. He has numerous tools to assist him in this effort: FBCB2, identification training for combat vehicles and aircraft, the unit's weapons safety posture, the weapons control status, and recognition markings. Knowledge and employment of applicable ROE are the primary means of preventing noncombatant casualties.

H-7. PLAN FOR EXTREME LIMITED VISIBILITY CONDITIONS

At night, limited visibility fire control equipment enables the SBCT infantry company to engage enemy forces at nearly the same ranges that are applicable during the day. Obscurants such as dense fog, heavy rain, heavy smoke, and blowing sand, however, may reduce the capabilities of thermal and IR equipment. It also may add confusion to information provided by FBCB2. Therefore, the company commander should develop contingencies for such extreme limited visibility conditions. Although decreased acquisition capabilities have minimal effect on area fire, point target engagements are

likely to occur at decreased ranges. Firing positions, whether offensive or defensive, typically must be adjusted closer to the area or point where the commander intends to focus fires. Another alternative is the use of visual or IR illumination when there is insufficient ambient light for passive light intensification devices.

H-8. DEVELOP CONTINGENCIES FOR DIMINISHED CAPABILITIES

Leaders initially develop plans based on their units' maximum capabilities; they make backup plans for implementation in the event of casualties, weapon damage or failure, or loss of the COP. While leaders cannot anticipate or plan for every situation, they should develop plans for what they view as the most probable occurrences. Building redundancy into these plans, such as having two systems observe the same sector, is an invaluable asset when the situation (and the number of available systems) permits. Designating alternate sectors of fire provides a means of shifting fires if adjacent elements become unable to fire.

Section II. FIRE CONTROL PROCESS

To bring direct fires against an enemy force successfully, commanders and leaders must continuously apply the four steps of the fire control process. At the heart of this process are two critical actions: rapid, accurate target acquisition and the massing of fires to achieve decisive effects on the target. Target acquisition is the detection, identification, and location of a target in sufficient detail to permit the effective employment of weapons. Massing entails focusing fires at critical points and then distributing the fires for optimum effect. The four steps are--

- Identify probable enemy locations and determine the enemy scheme of maneuver.
- Determine where and how to mass (focus and distribute) fire effects.
- Orient forces to speed target acquisition.
- Shift fires to refocus or redistribute their effects.

H-9. IDENTIFY PROBABLE ENEMY LOCATIONS AND DETERMINE THE ENEMY SCHEME OF MANEUVER

The SBCT infantry company commander plans and executes direct fires based on his analysis of the factors of METT-TC. In particular, his analyses of the terrain and the enemy force are essential and aid him in visualizing how the enemy will attack or defend a particular piece of terrain. A defending enemy's defensive position or an attacking enemy's support position is normally driven by terrain. Typically, there are limited points on a piece of terrain that provide both good fields of fire and adequate cover for a defender. Similarly, an attacking enemy will have only a limited selection of avenues of approach that provide adequate cover and concealment. Coupled with awareness gained through FBCB2, the company commander's understanding of the effects of a specific piece of terrain on maneuver assist him in identifying probable enemy locations and likely avenues of approach both before and during the fight. Figure H-1, page H-4, illustrates the commander's analysis of enemy locations and scheme of maneuver. He may use any or all of the following products or techniques in developing and updating the analysis:

- A SITEMP provided by the battalion.
- A SPOTREP or contact report on enemy locations and activities.
- Reconnaissance of the area of operations.

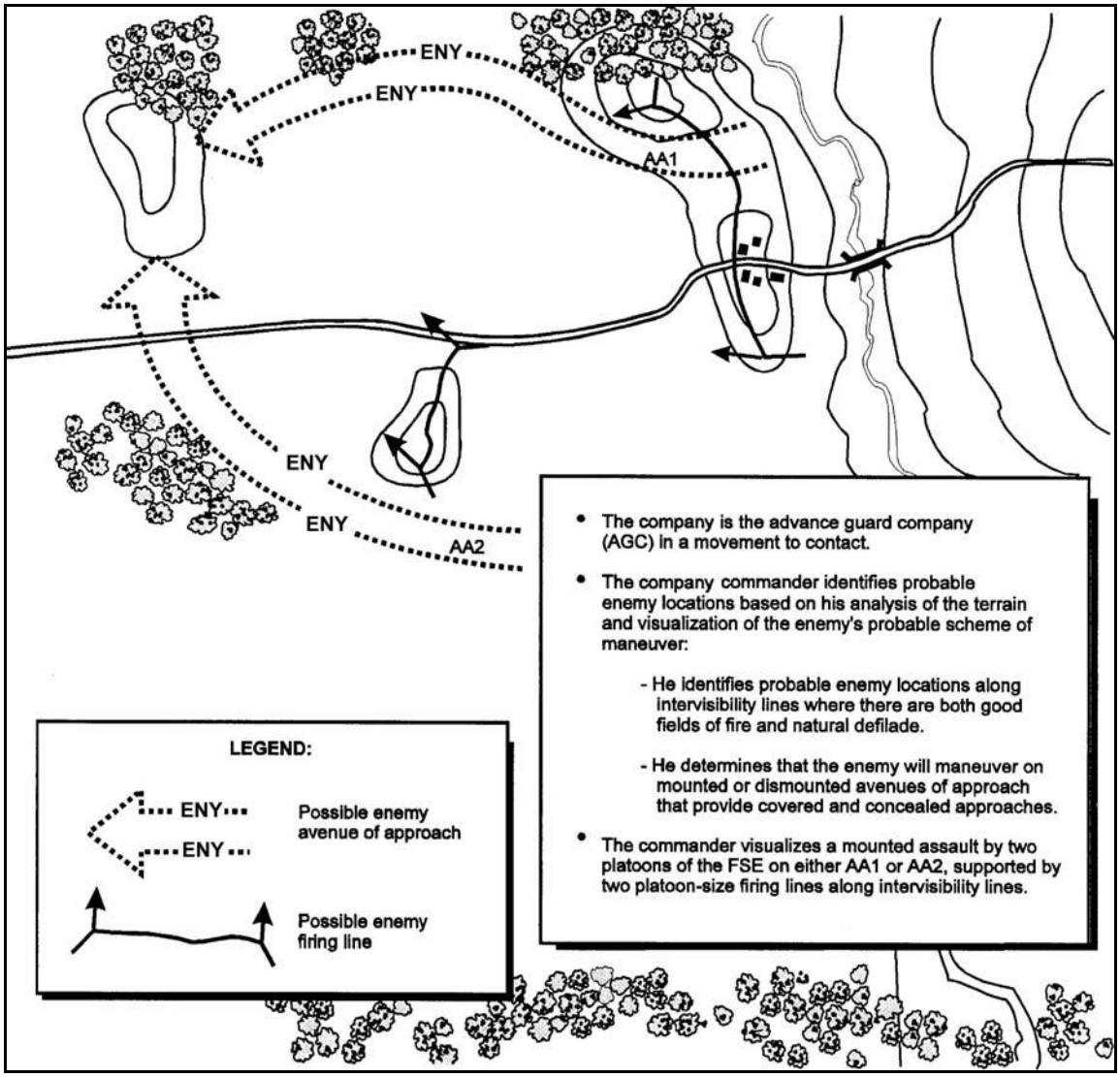

ENY
ENY
AA1
ENY
ENY
AA2
• The company is the advance guard company (AGC) in a movement to contact.
• The company commander identifies probable enemy locations based on his analysis of the terrain and visualization of the enemy's probable scheme of maneuver:
- He identifies probable enemy locations along intervisibility lines where there are both good fields of fire and natural defilade.
- He determines that the enemy will maneuver on mounted or dismounted avenues of approach that provide covered and concealed approaches.
• The commander visualizes a mounted assault by two platoons of the FSE on either AA1 or AA2, supported by two platoon-size firing lines along intervisibility lines.
LEGEND:
ENY
ENY
Possible enemy avenue of approach
Possible enemy firing line

Figure H-1. Identifying probable enemy locations and determining enemy scheme of maneuver.

H-10. DETERMINE WHERE AND HOW TO MASS FIRES

To achieve decisive effects, the SBCT infantry company must mass direct fires. Effective massing requires the company commander both to focus the fires of subordinate elements and to distribute the effects of those fires. Based on his analysis and his concept of the operation, the company commander identifies points where he wants to--or must--focus the company's direct fires. Most often, he has identified these locations as probable enemy positions or points along likely enemy avenues of approach where the company can mass direct fires. Because the platoons may not initially be oriented on the point where the commander wants to mass direct fires, he may issue a fire command to focus

the fires. At the same time, the company commander must use direct fire control measures to effectively distribute the direct fires of his subordinate elements, which are now focused on the same point. Figure H-2 illustrates how the commander masses fires against the enemy.

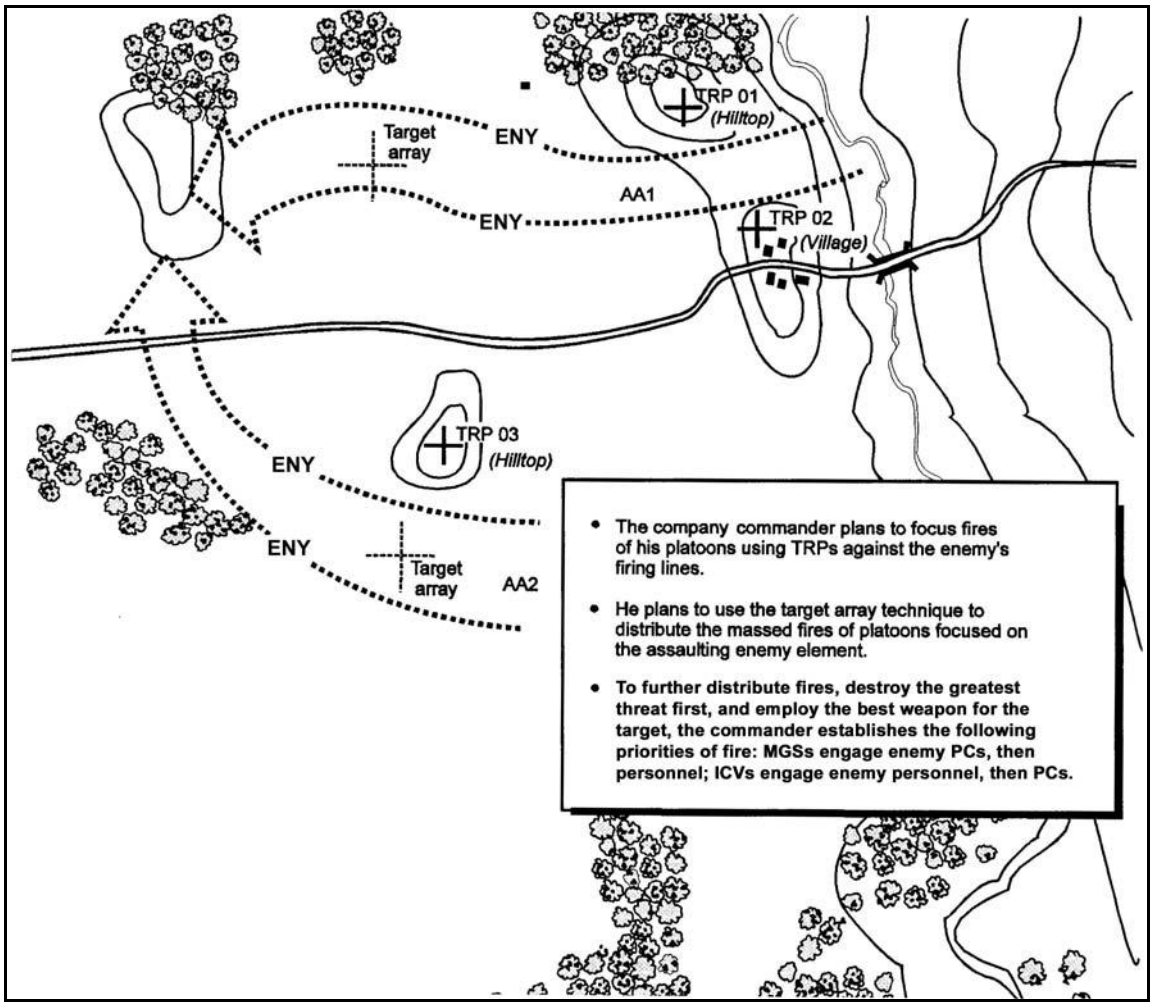

TRP 01
(Hilltop)
Target array
ENY
AA1
ENY
TRP 02
(Village)
TRP 03
(Hilltop)
ENY
ENY
Target array
AA2
• The company commander plans to focus fires of his platoons using TRPs against the enemy's firing lines.
• He plans to use the target array technique to distribute the massed fires of platoons focused on the assaulting enemy element.
• To further distribute fires, destroy the greatest threat first, and employ the best weapon for the target, the commander establishes the following priorities of fire: MGSs engage enemy PCs, then personnel; ICVs engage enemy personnel, then PCs.

Figure H-2. Determining where and how to mass (focus and distribute) fire effects to kill the enemy.

H-11. ORIENT FORCES TO SPEED TARGET ACQUISITION

To engage the enemy with direct fires effectively, the SBCT infantry company must rapidly and accurately acquire enemy elements. Orienting the company on probable enemy locations and on likely enemy avenues of approach speeds target acquisition. Conversely, failure to orient the company results in slower acquisition, which greatly increases the likelihood that enemy forces will be able to engage first. The SBCT infantry company commander receives information that enhances his awareness primarily by FBCB2, but he has other methods to reinforce FBCB2 information. The clock direction orientation method, which is prescribed in most unit SOPs, is good for achieving all-round security, but it does not ensure that friendly forces are most effectively oriented to detect the enemy. To achieve this critical orientation, the commander typically designates

TRPs on or near a probable enemy location or avenues of approach and orients his platoons using directions of fire or sectors of fire. Normally, some ICVs and MGS vehicles scan the designated direction, sector, or area while others observe alternate sectors or areas to provide all-round security. Figure H-3 illustrates how the company commander orients the company for quick, effective acquisition of the enemy force.

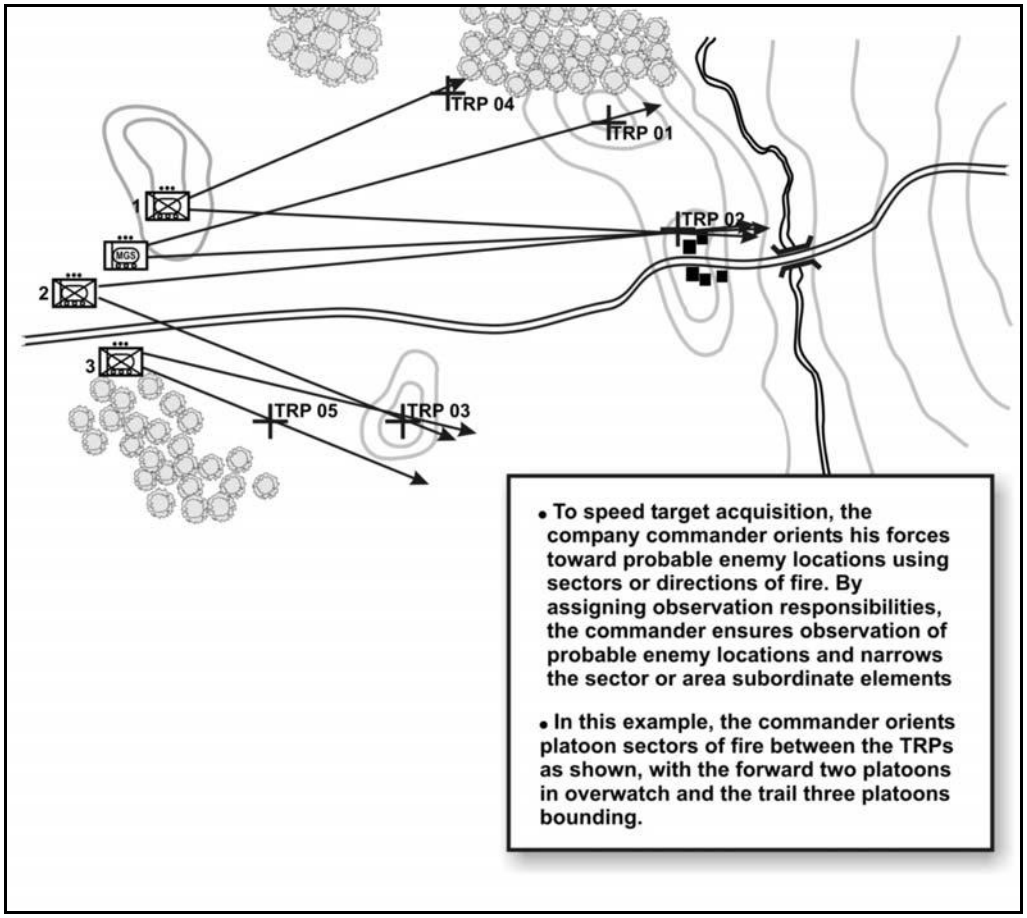

TRP 04
TRP 01
TRP 02
1
MGS
2
3
TRP 05
TRP 03
• To speed target acquisition, the company commander orients his forces toward probable enemy locations using sectors or directions of fire. By assigning observation responsibilities, the commander ensures observation of probable enemy locations and narrows the sector or area subordinate elements
• In this example, the commander orients platoon sectors of fire between the TRPs as shown, with the forward two platoons in overwatch and the trail three platoons bounding.

Figure H-3. Orienting forces to speed target acquisition.

H-12. SHIFT FIRES TO REFOCUS AND REDISTRIBUTE

As the engagement proceeds, leaders must shift direct fires to refocus and redistribute the effects based on evolving friendly and enemy information. Figure H-4 provides an example of shifting to refocus and redistribute fires. The SBCT infantry company commander and his subordinate leaders apply the same techniques and considerations that they used earlier to focus and distribute fires, including fire control measures. A variety of situations dictate shifting of fires, including the following:

- Appearance of an enemy force posing a greater threat than the one currently being engaged.
- Extensive destruction of the enemy force being engaged, creating the possibility of target overkill.
- Destruction of friendly elements that are engaging the enemy force.

- Change in the ammunition status of friendly elements that are engaging the enemy force.
- Maneuver of enemy or friendly forces resulting in terrain masking.
- Increased fratricide risk as a maneuvering friendly element closes with the enemy force being engaged.

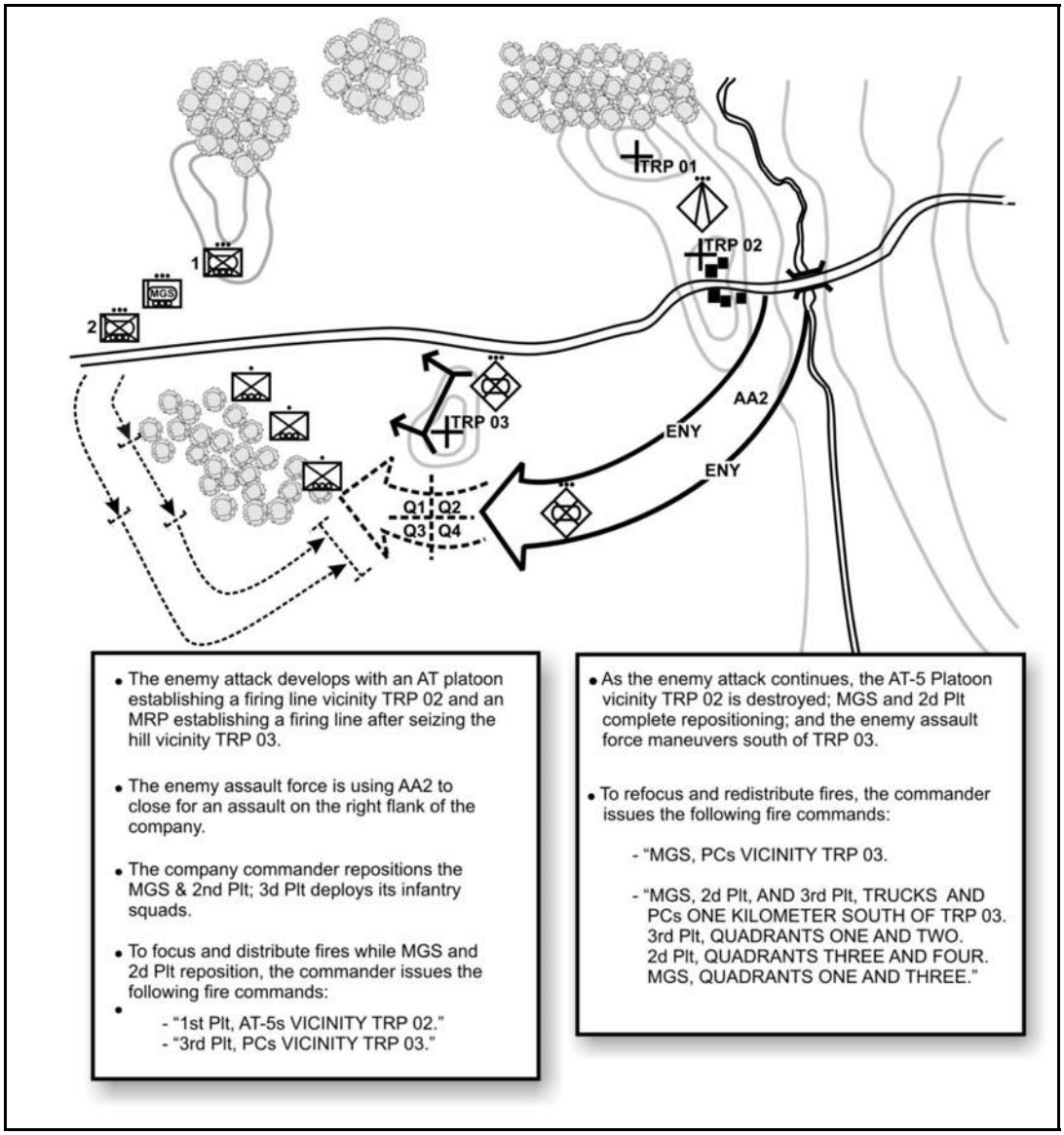

TRP 01
TRP 02
TRP 03
1
2
MGS
AA2
ENY
ENY
Q1
Q2
Q3
Q4
• The enemy attack develops with an AT platoon establishing a firing line vicinity TRP 02 and an MRP establishing a firing line after seizing the hill vicinity TRP 03.
• The enemy assault force is using AA2 to close for an assault on the right flank of the company.
• The company commander repositions the MGS & 2nd Plt; 3d Plt deploys its infantry squads.
• To focus and distribute fires while MGS and 2d Plt reposition, the commander issues the following fire commands:
- "1st Plt, AT-5s VICINITY TRP 02."
- "3rd Plt, PCs VICINITY TRP 03."
• As the enemy attack continues, the AT-5 Platoon vicinity TRP 02 is destroyed; MGS and 2d Plt complete repositioning; and the enemy assault force maneuvers south of TRP 03.
• To refocus and redistribute fires, the commander issues the following fire commands:
- "MGS, PCs VICINITY TRP 03.
- "MGS, 2d Plt, AND 3rd Plt, TRUCKS AND PCs ONE KILOMETER SOUTH OF TRP 03. 3rd Plt, QUADRANTS ONE AND TWO. 2d Plt, QUADRANTS THREE AND FOUR. MGS, QUADRANTS ONE AND THREE."

Figure H-4. Shifting to refocus and redistribute fires.

Section III. DIRECT FIRE PLANNING

The SBCT infantry company commander plans direct fires concurrent with his troop-leading procedures. Determining where and how the company can and will mass fires is an essential step as the commander develops his concept of the operation.

H-13. PLANNING DIRECT FIRES

After identifying probable (or known) enemy locations, the SBCT infantry commander determines points or areas where he will focus his combat power. His situational understanding (or visualization) of where and how the enemy will attack or defend assists him in determining the volume of fires he must focus at particular points to have a decisive effect. In addition, if he intends to mass the direct fires of more than one platoon, he must establish a means for distributing those fires effectively.

a. Based on where and how he wants to focus and distribute direct fires, the commander can establish the weapons ready postures for company elements as well as triggers for initiating fires. The company commander uses the tactical information provided by FBCB2. He must evaluate the risk of fratricide and establish controls to prevent it. Fratricide prevention measures include designation of recognition markings, weapons control status, and weapons safety posture.

b. Having determined where and how he will mass and distribute direct fires, the company commander must orient platoons so they can rapidly and accurately acquire the enemy. The commander must anticipate how the enemy will fight. He gains this anticipation through a detailed war-game of the selected course of action to determine probable requirements for refocusing and redistributing fires and to establish other necessary controls. Also during the troop-leading procedures, the company commander plans and conducts rehearsals of direct fires (and of the fire control process) based on his analysis.

c. The company commander must continue to apply planning procedures and considerations throughout execution. He must be able to adjust direct fires based on combining the latest available tactical information from FBCB2. When necessary, he must also apply effective direct fire SOPs, which are covered in the following discussion.

H-14. DIRECT FIRE SOP

A well-rehearsed direct fire SOP enhances direct fire planning and ensures quick, predictable actions by all members of the company. The SBCT infantry company commander bases the various elements of the SOP on the capabilities of his force and on anticipated conditions and situations. SOP elements should include standing means for focusing fires, distributing their effects, orienting forces, and preventing fratricide. The commander should adjust the direct fire SOP whenever changes to anticipated and actual factors of METT-TC become apparent.

a. **Focusing Fires.** FBCB2 enhances a company commander's ability to focus the direct fires of his platoons, but he also needs other means, such as TRPs, to do so. One technique is to establish a standard respective position for TRPs in relation to friendly elements and then to consistently number the TRPs, such as from left to right. This allows leaders to quickly determine and communicate the location of the TRPs.

b. **Distributing Fires.** Two useful means of distributing the effects of the company's direct fires are engagement priorities and target array. Engagement priorities, by type of enemy vehicle or weapon, are assigned for each type of friendly weapon system. The target array technique can assist in distribution by assigning specific friendly elements to engage enemy elements of approximately similar capabilities. The following are example SOP elements for distributing the fires of an SBCT infantry company moving mounted in a wedge formation:

- MGSs engage medium-armored vehicles first, then tanks.
- ICVs engage antitank weapons first, then trucks.
- Javelins engage tanks first, then other armored vehicles.
- Dismounted infantry engage crew-served weapons, then infantry.
- If the company masses fires at the same target, then the MGS platoon engages enemy armored vehicles, the left flank infantry platoon engages the left half of the enemy formation, and the right flank infantry platoon engages the right half of the enemy formation. The trail infantry platoon remains in reserve.

c. **Orienting Forces.** A standard means of orienting friendly forces is to assign a primary direction of fire, using a TRP, to orient each element on a probable (or known) enemy position or likely avenue of approach. To provide all-round security, the SOP can supplement the primary direction of fire with sectors using a friendly-based quadrant. The following example SOP elements illustrate the use of these techniques:

(1) The front (center) platoon's primary direction of fire is TRP 2 (center) until otherwise specified; the platoon is responsible for the front two quadrants.

(2) The left flank platoon's primary direction of fire is TRP 1 (left) until otherwise specified; the platoon is responsible for the left two friendly quadrants (overlapping with the center platoon).

(3) The right flank platoon's primary direction of fire is TRP 3 (right) until otherwise specified; the platoon is responsible for the right two friendly quadrants (overlapping with the center platoon).

(4) The trail platoon's primary direction of fire is TRP 3 (right) until otherwise specified; the platoon is responsible for the bottom right friendly quadrant (overlapping with the right platoon).

d. **Preventing Fratricide.** FBCB2 is a good tool for minimizing fratricide risk but does not supplant the company commander's responsibility to plan for fratricide prevention. The SOP must address the most critical requirement of fratricide prevention with or without FBCB2. It must direct subordinate leaders to inform the commander, adjacent elements, and subordinates whenever a friendly force is moving or preparing to move. One technique is to establish a standing weapons control status of WEAPONS TIGHT, which requires positive enemy identification prior to engagement. The SOP must also cover means for identifying dismounted infantry squads and other friendly dismounted elements. Techniques include using arm bands, medical heat pads, or an IR light source, as well as detonating a smoke grenade of a designated color at the appropriate time.

Section IV. DIRECT FIRE CONTROL

Acquiring the enemy is a precursor to direct fire engagement. The company commander must not assume that his unit will always be able to see the enemy through FBCB2. He must expect the enemy to use cover and concealed routes effectively when attacking and to make best use of flanking and concealed positions in the defense. As a result, the company may not have the luxury of a fully exposed enemy that it can easily see. The acquisition of the enemy often depends on visual recognition of very subtle indicators, such as exposed antennas, reflections from the vision blocks of enemy vehicles, small dust clouds, or smoke from vehicle engines or ATGM or tank fires. Because of the difficulty of target acquisition, the company commander must develop surveillance plans

to assist the company in acquiring the enemy. The information he gains can then be shared with others through FBCB2.

H-15. FIRE CONTROL MEASURES

Fire control measures are the means by which the SBCT infantry company commander or his subordinate leaders control direct fires. Application of these concepts, procedures, and techniques assists the unit in acquiring the enemy, focusing fires on him, distributing the effects of the fires, and preventing fratricide. At the same time, no single measure is sufficient to control fires effectively. At company level, fire control measures are effective only if the entire unit has a common understanding of what they mean and how to employ them. Table H-1 lists terrain-based and threat-based fire control measures.

Terrain-Based Fire Control Measures	Threat-Based Fire Control Measures
Target reference point	Fire patterns
Engagement area	Target array
Sector of fire	Engagement priorities
Direction of fire	Weapons ready posture
Terrain-based quadrant	Engagement criteria
Friendly-based quadrant	Weapons control status
Maximum engagement line	Rules of engagement
Restrictive fire line	Weapons safety posture
Final protective line	Engagement techniques

Table H-1. Common fire control measures.

a. **Terrain-Based Fire Control Measures.** The SBCT infantry company commander uses terrain-based fire control measures to focus and control fires on a particular point, line, or area rather than on a specific enemy element. The following paragraphs describe the techniques associated with this type of control measure.

(1) ***Target Reference Point.*** A target reference point is an easily recognizable point on the ground that leaders use to orient friendly forces and to focus and control direct fires. In addition, when TRPs are designated as indirect fire targets, they can be used in calling for and adjusting indirect fires. Leaders designate TRPs at probable (or known) enemy locations and along likely avenues of approach. TRPs can be natural or manmade and can be established sites, such as hills or buildings, or impromptu features designated as TRPs on the spot, like burning enemy vehicles or smoke generated by an artillery round. Ideally, TRPs should be visible in three observation modes (unaided, passive-IR, and thermal) so all forces can identify them. Example of TRPs include the following features and objects:

- Prominent hill mass.
- Distinctive building.
- Observable enemy position.
- Destroyed vehicle.
- Ground-burst illumination.
- Smoke round.
- Laser point.

(2) ***Engagement Area.*** This fire control measure is an area along an enemy avenue of approach where the company commander intends to mass the direct fires of available

weapons to destroy an enemy force. The size and shape of the EA is determined by the degree of relatively unobstructed intervisibility available to the unit's weapons systems in their firing positions and by the maximum range of those weapons. Typically, company commanders delineate responsibility within the EA by assigning each platoon a sector of fire or direction of fire.

(3) ***Sector of Fire.*** A sector of fire is a defined area that must be covered by direct fire. Leaders assign sectors of fire to subordinate elements, crew-served weapons, and individual soldiers to ensure coverage of an area of responsibility. They may also limit the sector of fire of an element or weapon to prevent accidental engagement of an adjacent unit. In assigning sectors of fire, commanders and subordinate leaders consider the number and types of weapons available. They also consider acquisition system type and field of view in determining the width of a sector of fire. For example, while unaided vision has a wide field of view, its ability to detect and identify targets at distant ranges and in limited visibility conditions is restricted. Conversely, most fire control acquisition systems have greater detection and identification ranges than the unaided eye, but their field of view is narrow. Means of designating sectors of fire include the following:

- TRPs.
- Clock direction.
- Terrain-based quadrants.
- Friendly-based quadrants.

(4) ***Direction of Fire.*** A direction of fire is an orientation or point used to assign responsibility for a particular area on the battlefield that must be covered by direct fire. Leaders designate directions of fire for the purpose of acquisition or engagement by subordinate elements, crew-served weapons, or individual soldiers. Direction of fire is most commonly employed when assigning sectors of fire would be difficult or impossible because of limited time or insufficient reference points. Means of designating a direction of fire include the following:

- Closest TRP.
- Clock direction.
- Cardinal direction.
- Tracer on target.
- IR laser pointer.

(5) ***Quadrants.*** Quadrants are subdivisions of an area created by superimposing imaginary perpendicular axes over the terrain to create four separate areas, or quadrants. Quadrants can be based on the terrain, on friendly forces, or on the enemy formation. The technique in which quadrants are based on the enemy formation is usually referred to as the target array and is covered in threat-based fire control measures (paragraph H-15b). The method of identifying quadrants is established in the unit SOP, but the unit must take care to avoid confusion when using quadrants based on terrain, friendly forces, and enemy formations simultaneously.

(a) *Terrain-Based Quadrant*. A terrain-based quadrant entails use of a TRP, either existing or constructed, to designate the center point of the axes that divide the area into four quadrants. This technique can be employed in both offensive and defensive operations. In the offense, the company commander designates the center of the quadrant using an existing feature or by creating a reference point (for example, using a ground burst illumination round, a smoke marking round, or a fire ignited by incendiary or tracer

rounds). The axes delineating the quadrants run parallel and perpendicular to the direction of movement. In the defense, the company commander designates the center of the quadrant using an existing or constructed TRP. In Figure H-5, the quadrants are marked using the letter "Q" and a number (Q1 to Q4); quadrant numbers are in the same relative positions as on military map sheets (from Q1 as the upper left quadrant clockwise to Q4 as the lower left quadrant).

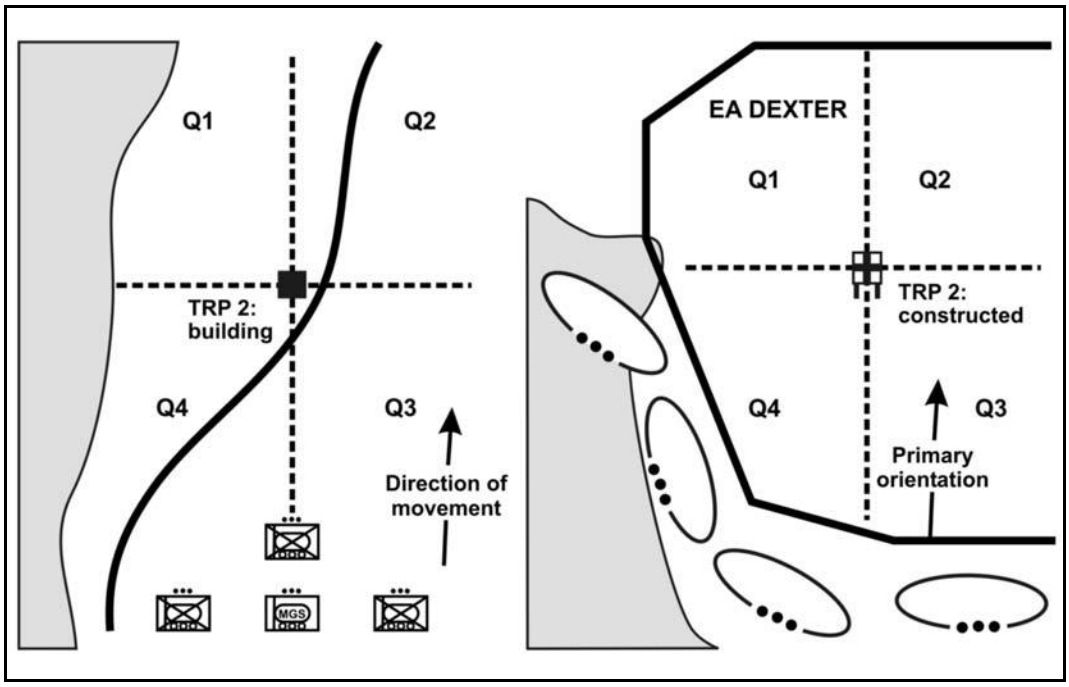


Figure H-5. Terrain-based quadrants.

(b) *Friendly-Based Quadrant*. The friendly-based quadrant technique entails superimposing quadrants over the unit's formation. The center point is based on the center of the formation, and the axes run parallel and perpendicular to the general direction of travel. For rapid orientation, the friendly quadrant technique may be better than the clock direction method because different elements of a large formation are rarely oriented in the same exact direction and because the relative dispersion of friendly forces causes parallax to the target. Figure H-6 illustrates use of friendly-based quadrants.

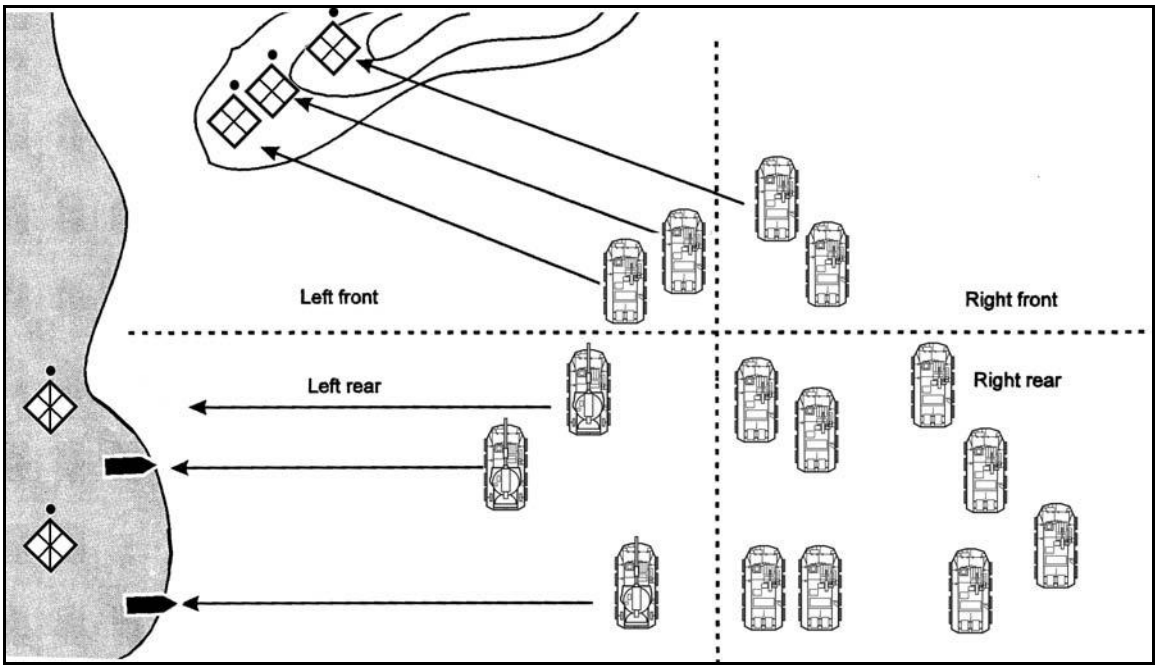


Figure H-6. Friendly-based quadrants.

(6) ***Maximum Engagement Line.*** A MEL is the linear depiction of the farthest limit of effective fire for a weapon or unit. This line is determined both by the weapon's or unit's maximum effective range and by the effects of terrain. For example, slope, vegetation, structures, and other features provide cover and concealment that may prevent the weapon from engaging out to the maximum effective range. A MEL serves several purposes. The company commander may use it to prevent vehicle crews and dismounted squads from engaging beyond the maximum effective range of their weapons, to define criteria for the establishment of triggers, and to delineate the maximum extent of battle space on the sector sketch.

(7) ***Restrictive Fire Line.*** An RFL is a line established between converging friendly forces (one or both may be moving) that prohibits fires and effects across the line without coordination with the affected force. In the offense, the company commander may designate an RFL to prevent a base of fire platoon from firing into the area where an assaulting platoon is maneuvering. This technique is particularly important when vehicles (ICV or MGS) support the maneuver of dismounted infantry squads. In the defense, the company commander may establish an RFL to prevent the unit from engaging a dismounted infantry squad positioned in restricted terrain on the flank of an enemy avenue of approach.

(8) ***Final Protective Line.*** The FPL is a line of fire established where an enemy assault is to be checked by the interlocking fires of all available weapons. The unit reinforces this line with protective obstacles and with FPFs whenever possible. Initiation of the FPF is the signal for elements, vehicle crews, and individual soldiers to shift fires to their assigned portion of the FPL.

b. **Threat-Based Fire Control Measures.** The SBCT infantry company commander uses threat-based fire control measures to focus and control direct fires by directing the unit to engage a specific enemy element rather than to fire on a point or area. The

following paragraphs describe the techniques associated with this type of fire control measure.

(1) ***Fire Patterns.*** Fire patterns are a threat-based fire control measure designed to distribute the fires of a unit simultaneously among multiple, similar targets. They are most often used by platoons to distribute fires across an enemy formation. Leaders designate and adjust fire patterns based on terrain and the anticipated enemy formation. The basic fire patterns, illustrated in Figure H-7, are the following:

- Frontal fire.
- Cross fire.
- Depth fire.

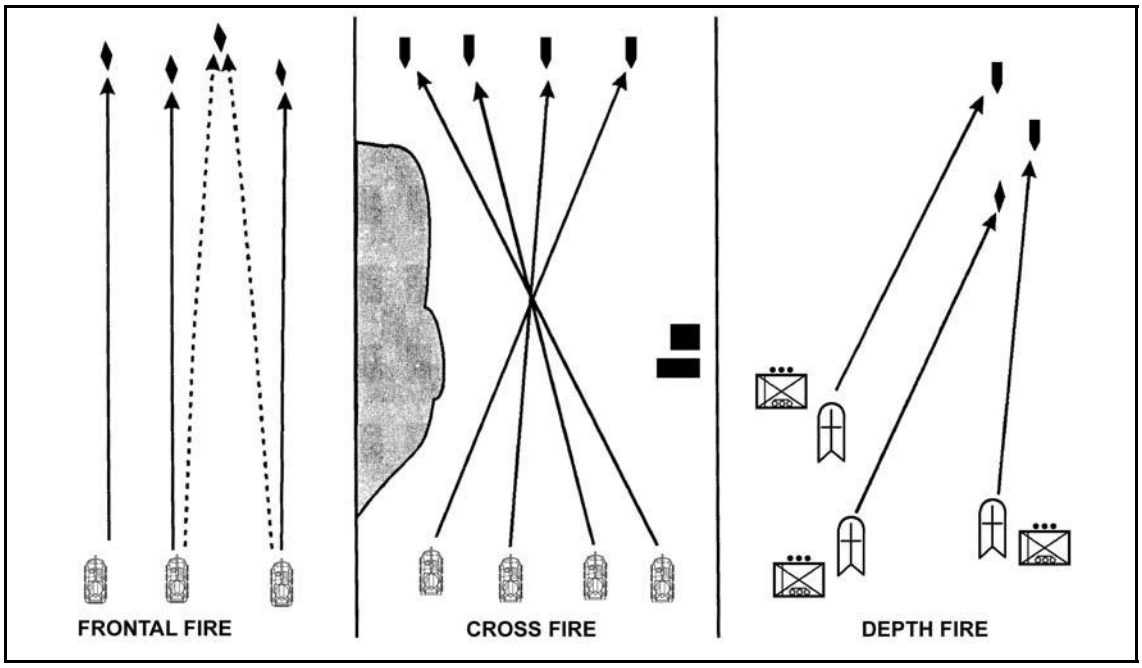


Figure H-7. Fire patterns.

(a) *Frontal Fire*. Leaders may initiate frontal fire when targets are arrayed in front of the unit in a lateral configuration. Weapons systems engage targets to their respective fronts. For example, the left flank weapon engages the left-most target, and the right flank weapon engages the right-most target. As the unit destroys targets, weapons shift fires toward the center of the enemy formation and from near to far.

(b) *Cross Fire*. Leaders initiate cross fire when targets are arrayed laterally across the unit's front in a manner that permits diagonal fires at the enemy's flank or when obstructions prevent unit weapons from firing frontally. Right flank weapons engage the left-most targets, and left flank weapons engage the right-most targets. Firing diagonally across an engagement area provides more flank shots, thus increasing the chance of kills. It also reduces the possibility of the enemy detecting friendly elements as he continues to move forward. As the unit destroys targets, weapons shift fires toward the center of the enemy formation.

(c) *Depth Fire*. Leaders initiate depth fire when targets are dispersed in depth, perpendicular to the unit. Center weapons engage the closest targets, and flank weapons

engage deeper targets. As the unit destroys targets, weapons shift fires toward the center of the enemy formation.

(2) ***Target Array.*** Target array permits the company commander to distribute fires when the enemy force is concentrated and terrain-based controls are inadequate. This threat-based distribution measure is similar to the quadrant method mentioned in terrain-based fire control measures. The company commander creates the target array by superimposing a quadrant pattern over an enemy formation. The pattern centers on the enemy formation, with the axes running parallel and perpendicular to the enemy's direction of travel. Quadrants are described using their relative locations. The examples in Figure H-8 illustrate the target array technique.

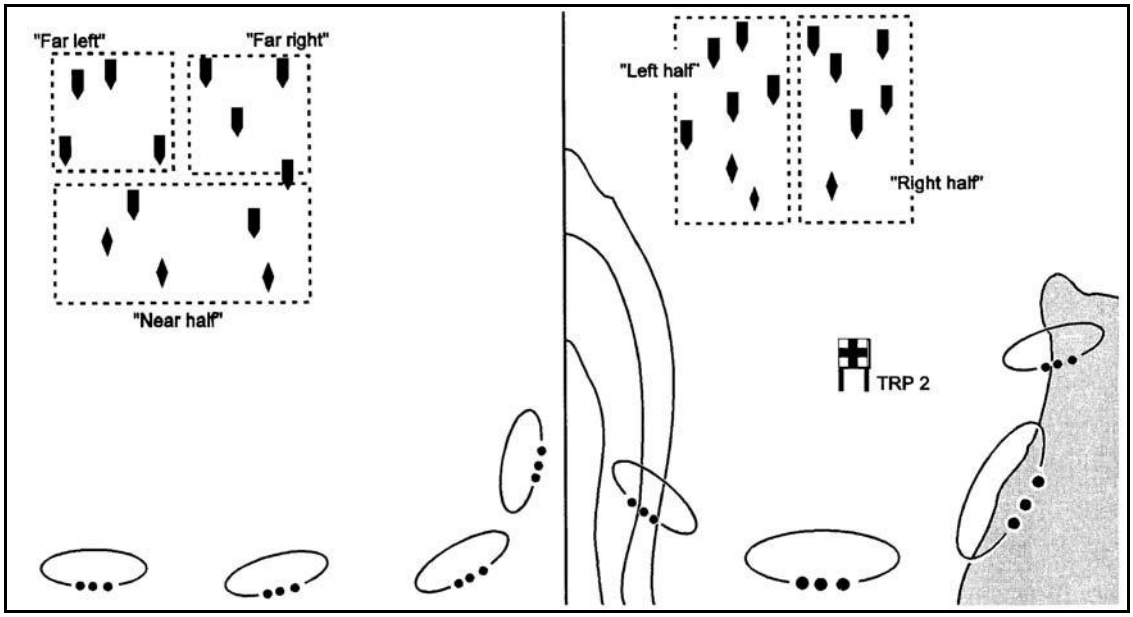


Figure H-8. Examples of target array.

(3) ***Engagement Priorities.*** Engagement priorities entail the sequential ordering of targets to be engaged. They serve one or more of the following critical fire control functions:

(a) *Prioritize Targets*. In concert with his concept of the operation, the company commander determines which target types provide the greatest threat to the company and sets these as engagement priorities. For example, he may decide that destroying enemy engineer assets is the best way to prevent the enemy from breaching an obstacle.

(b) *Employ the Best Weapons for the Target*. Establishing engagement priorities for specific friendly systems increases the effectiveness with which the unit employs its weapons. As an example, the engagement priority for the company MGS vehicles could be enemy fortifications first, then enemy armored vehicles. This decreases the chance that the company's Javelins will need to engage enemy fortifications.

(c) *Distribute the Unit's Fires*. Establishing different priorities for similar friendly systems helps to prevent overkill and achieve effective distribution of fires. For example, the company commander may designate the enemy fortifications as the initial priority for one infantry platoon while making the enemy vehicles the priority for another infantry

platoon. This decreases the chance of multiple Javelins being fired against two enemy vehicles while ignoring the dangers posed by the fortifications.

(4) ***Weapons Ready Posture.*** The weapons ready posture is a means by which leaders use the tactical information available to specify the ammunition and range for the most probable engagement. Ammunition selection depends on the target type, but the leader may adjust it based on engagement priorities, desired effects, and effective range. Range selection depends on the anticipated engagement range and is affected by terrain intervisibility, weather, and light conditions. Within the company, the weapons ready posture affects the types and quantities of ammunition loaded in ready boxes, stowed in ready racks, and carried by dismounted infantry squads.

(a) For dismounted infantry squads, weapons ready posture is the selected ammunition and indexed range for individual and crew-served weapons. For example, an M203 grenadier whose most likely engagement is to cover dead space at 200 meters from his position might load high explosive, dual purpose (HEDP) rounds and set 200 meters on his quadrant sight. To prepare for an engagement in a wooded area where engagement ranges are extremely short, an antiarmor specialist might dismount the ICV with an AT4 instead of a Javelin.

(b) For ICVs and MGSs, weapons ready posture covers the selected ammunition and the indexed range.

(5) ***Engagement Criteria.*** Engagement criteria are a specific set of conditions that specify the circumstances in which subordinate elements are to engage. This is often referred to as a trigger. The circumstances can be based on a friendly or an enemy event. For example, the engagement criteria for a friendly platoon to initiate engagement could be three or more enemy combat vehicles passing or crossing a given point or line. This line can be any natural or manmade linear feature, such as a road, ridgeline, or stream, or a line perpendicular to the unit's orientation, delineated by one or more reference points.

(6) ***Weapons Control Status.*** The three levels of weapons control status outline the conditions, based on target identification criteria, under which friendly elements may engage. The commander sets and adjusts the weapons control status based on friendly and enemy disposition. In general, a more restrictive WCS relates to a higher probability of fratricide. The three levels, in descending order of restriction, are--

- WEAPONS HOLD. Engage only if engaged or ordered to engage.
- WEAPONS TIGHT. Engage only targets positively identified as enemy.
- WEAPONS FREE. Engage any targets not positively identified as friendly.

As an example, the company commander may establish the WCS as WEAPONS HOLD when friendly forces are conducting a passage of lines. Through awareness gained by FBCB2, he may be able to lower the WCS. In such a case, the company commander may be able to set a WEAPONS FREE status when he knows there are no friendly elements in the vicinity of the engagement. This permits his elements to engage targets at extended ranges even though it is difficult to distinguish the targets accurately under battlefield conditions. The WCS is extremely important for forces using combat identification systems: establishing the WCS as WEAPONS FREE permits leaders to engage an unknown target when they fail to get a friendly response.

(7) ***Rules of Engagement.*** ROE specify the circumstances and limitations under which forces may engage. ROE include definitions of combatant and noncombatant elements and prescribe the treatment of noncombatants. Factors influencing ROE are

national command policy, the mission and commander's intent, the operational environment, and the law of war. ROE always recognize a soldier's right of self-defense; at the same time, they clearly define circumstances in which he may fire.

(8) ***Weapons Safety Posture.*** Weapons safety posture is an ammunition handling instruction that allows the company commander to precisely control the safety of his unit's weapons. Leaders supervise the weapons safety posture and soldier adherence to it, minimizing the risk of accidental discharge and fratricide. Table H-2, page H-18, outlines procedures and considerations for the company team in using the four weapons safety postures, listed in ascending order of restriction--

- AMMUNITION LOADED.
- AMMUNITION LOCKED.
- AMMUNITION PREPARED.
- WEAPONS CLEARED.

In setting and adjusting the weapons safety posture, the company commander must weigh the need to prevent accidental discharges against the requirement for immediate action based on the enemy threat. If the possibility of direct contact with the enemy is high, the company commander may establish the weapons safety posture as AMMUNITION LOADED. If the requirement for action is less immediate, he may lower the posture to AMMUNITION LOCKED or AMMUNITION PREPARED. Additionally, the company commander may designate different weapons safety postures for different elements of the unit. For example, in the attack position, ICVs may switch to AMMUNITION LOADED while infantry squads riding in the ICVs remain at AMMUNITION LOCKED.

	MGS WEAPONS AND AMMUNITION	ICV WEAPONS AND AMMUNITION	INFANTRY SQUAD WEAPONS AND AMMUNITION
AMMUNITION LOADED	Main gun ammunition loaded. Self-defense weapon ammunition on feed tray; bolt locked to rear. Smoke grenades in launchers. Weapons on electrical safe.	Self-defense weapon ammunition on feed tray; bolt locked to rear. Smoke grenades in launchers. Weapons on electrical safe.	M4 rounds chambered. M240B and M249 ammunition on feed tray; bolt locked to rear. M203 launcher loaded. Weapons on safe.
AMMUNITION LOCKED	Main gun ammunition in ready rack. Self-defense weapon ammunition on feed tray; bolt forward. Smoke grenades in launchers. Weapons on electrical safe.	Self-defense weapon ammunition on feed tray; bolt forward. Smoke grenades in launchers. Weapons on electrical safe.	Magazines locked into M4s. M240B and M249 ammunition on feed tray; bolt locked forward. M203 launcher unloaded.
AMMUNITION PREPARED	Main gun ready rack filled. Machine gun ammunition boxes filled. Smoke grenades in launchers.	Self-defense weapon ready boxes filled. Smoke grenades in launchers.	Magazines, ammunition boxes, launcher grenades, and hand grenades prepared but stowed in pouches or vests.
WEAPONS CLEARED	Main gun ready rack filled. Self-defense weapon cleared, with bolts locked to the rear.	Self-defense weapon cleared, with bolts locked to the rear.	Magazines, ammunition boxes, and launcher grenades removed; all weapons cleared.

Table H-2. Weapons safety posture levels.

(9) ***Engagement Techniques.*** Engagement techniques are effects-oriented direct fire distribution measures. The following engagement techniques are the most common in SBCT infantry company operations:

- Point fire.
- Area fire.
- Alternating fire.
- Sequential fire.
- Simultaneous fire.
- Observed fire.
- Time of suppression.
- Reconnaissance by fire.

(a) *Point Fire*. Point fire concentrates the effects of a unit's fire against a specific, identified target such as a vehicle, machine gun bunker, or ATGM position. When leaders direct point fire, all of the unit's weapons engage the target, firing until it is destroyed or

the required time of suppression has expired. Employing converging fires from dispersed positions makes point fire more effective because the unit engages the target from multiple directions. The unit may initiate an engagement using point fire against the most dangerous threat, then revert to area fire against other, less threatening point targets. (Use of point fire has been fairly rare because a unit seldom encounters a single, clearly identified enemy weapon; however, with the increased tactical information gained through FBCB2, this may become a more useful technique.)

(b) *Area Fire*. Area fire involves distributing the effects of a unit's direct fires over an area in which enemy positions are numerous or are not obvious. If the area is large, leaders assign sectors of fire to subordinate elements using a terrain-based distribution method such as the quadrant technique. Typically, the primary purpose of the area fire is suppression; however, sustaining effective suppression requires judicious control of the rate of fire.

(c) *Alternating Fire*. In alternating fire, pairs of elements continuously engage the same point or area target one at a time. For example, a company team may alternate fires of two platoons; a tank platoon may alternate the fires of its sections, or an infantry platoon may alternate the fires of a pair of machine guns. Alternating fire permits the unit to maintain suppression for a longer duration than does simultaneous fire. It also forces the enemy to acquire and engage alternating points of fire.

(d) *Sequential Fire*. In sequential fire, the subordinate elements of a unit engage the same point or area target one after another in an arranged sequence. For example, an MGS platoon may sequence the fires of its four vehicles to gain maximum time of suppression. Sequential fire can also help prevent the waste of ammunition, as when an infantry platoon waits to see the effects of the first Javelin before firing another. Additionally, sequential fire permits elements that have already fired to pass on information they have learned from the engagement. An example would be an infantryman who missed an armored vehicle with AT4 fires passing range and lead information to the next soldier preparing to engage the same armored vehicle with an AT4.

(e) *Simultaneous Fire*. Units employ simultaneous fire, also referred to as volley fire, to rapidly mass the effects of their fires or to gain immediate fire superiority. For example, a unit may initiate a support-by-fire operation with simultaneous fire, then change to alternating or sequential fire to maintain suppression. Simultaneous fire is also employed to negate the low probability of hit and kill of certain antiarmor weapons. As an example, a dismounted infantry squad may employ volley fire with its AT4s to ensure rapid destruction of a BMP that is engaging a friendly position.

(f) *Observed Fire*. Observed fire is normally used when the company is in concealed defensive positions with engagement ranges in excess of 2,500 meters. It can be employed between elements of the company, such as an infantry platoon observing while the MGS platoon fires, or between vehicles of the MGS platoon. The company commander or platoon leader directs one element or vehicle to engage. The remaining elements or vehicles observe fires and prepare to engage on order in case the engaging element consistently misses its targets, experiences a malfunction, or runs low on ammunition. Observed fire allows for mutual observation and assistance while protecting the location of the observing elements.

(g) *Time of Suppression*. Time of suppression is the period, specified by the company commander, during which an enemy position or force is to be suppressed. Suppression time typically depends on the time it will take a supported element to maneuver. Normally, a unit suppresses an enemy position using the sustained rate of fire of its weapons. In planning for sustained suppression, leaders must consider several factors: the estimated time of suppression, the size of the area being suppressed, the type of enemy force to be suppressed, range to the target, rates of fire, and available ammunition quantities.

(h) *Reconnaissance by Fire*. Reconnaissance by fire is the process of engaging possible enemy locations to elicit a tactical response, such as return fire or movement. This response permits the company commander and his subordinate leaders to make accurate target acquisition and then to mass fires against the enemy element. Typically, the company commander directs a platoon to conduct the reconnaissance by fire. For example, he may direct an overwatching platoon to conduct the reconnaissance by fire against a probable enemy position before initiating movement by a bounding element. The company commander should use reconnaissance by fire only if he cannot gain accurate information through FBCB2.

H-16. FIRE COMMANDS

Fire commands are oral orders issued by the SBCT infantry company commander and his subordinate leaders to focus and distribute fires as required to achieve the desired effects against an enemy force. Fire commands allow leaders in the already confusing environment of close combat to articulate their firing instructions rapidly and concisely using a standard format. Unit fire commands include these elements--

- Alert.
- Weapon or ammunition (optional).
- Target description.
- Orientation.
- Range (optional).
- Control (optional).
- Execution.

a. **Alert.** The alert specifies the units that are directed to fire. It does not require the leader who initiates the command to identify himself. Examples of the alert element (call signs and code words based on unit SOP) include the following--

- "GUIDONS" (all subordinate elements).
- "RED" (1st platoon only).

b. **Weapon or Ammunition (Optional).** This element identifies the weapon and ammunition to be employed by the alerted units. Leaders may designate the type and number of rounds to limit expenditure of ammunition. Examples of this element include the following:

- "JAVELIN."
- "TWO ROUNDS HEP-T."

c. **Target Description.** Target description designates which enemy forces are to be engaged. Leaders may use the description to focus fires or achieve distribution. Examples of target description include the following:

- "TROOPS IN TRENCH."
- "BUNKER."
- "THREE PCs (personnel carriers)."

d. **Orientation.** This element identifies the location of the target. There are numerous ways to designate the location of target, including the following:

- Closest TRP. Example: "TRP 13."
- Clock direction. Example: "ONE O'CLOCK."
- Terrain quadrant. Example: "QUADRANT ONE."
- Friendly quadrant. Example: "LEFT FRONT."
- Target array. Example: "FRONT HALF."
- Tracer on target. Example: "ON MY TRACER."
- Laser pointer. Example: "ON MY POINTER."

e. **Range (Optional).** The range element identifies the distance to the target. Announcing range is not necessary for systems that have range finders or that employ command-guided or self-guided munitions. For systems that require manual range settings, leaders have a variety of means for determining range, including the following:

- Predetermined ranges to TRPs or phase lines.
- An MGS crew announcing the range for an infantry platoon.
- Handheld range finders.
- Range stadia.
- Mil reticles.

f. **Control (Optional).** The company commander may use this optional element to direct desired target effects, distribution methods, or engagement techniques. Subordinate leaders may include the control element to supplement the company commander's instructions and achieve effective distribution. Examples of information specified in the control element include the following:

- Target array. Example: "FRONT HALF."
- Fire pattern. Example: "FRONTAL."
- Terrain quadrant. Example: "QUADRANT ONE."
- Engagement priorities. Example: "MGSs ENGAGE BUNKERS; ICVs ENGAGE TROOPS."
- Engagement technique. Example: "ALTERNATING."
- Target effect. Example: "AREA."

g. **Execution.** The execution element specifies when direct fires should be initiated. The company commander may engage immediately, delay initiation, or delegate authority to engage. Examples of this element include the following:

- "FIRE."
- "AT MY COMMAND."
- "AT YOUR COMMAND."
- "AT PHASE LINE ORANGE."

GLOSSARY

1SG	first sergeant
AA	assembly area; avenue of approach
AAR	after-action review
ABF	attack by fire
ACA	airspace coordination area
ADA	air defense artillery
ADACC	air defense and aviation coordination cell
ADAM	area-denial artillery munition
ADW	air defense warning
AFATDS	advanced field artillery tactical data system
AGC	advance guard company
A/L	administrative/logistics
AMD	air and missile defense
AO	area of operations
AOI	area of interest
APC	armored personnel carrier
APICM	antipersonnel improved conventional munition
ARNG	Army national guard
ARTEP	Army Training and Evaluation Program
ASLT PSN	assault position
AT	antitank
ATGM	antitank guided missile
ATK PSN	attack position
ATP	ammunition transfer point
AVLB	armored vehicle-launched bridge
AXP	ambulance exchange point
BAS	battalion aid station
BDAR	battle damage assessment and repair
BDU	battle dress uniform
BFV	Bradley fighting vehicle
BHL	battle handover line
BMNT	beginning morning nautical twilight
BMP	Russian vehicle
BOLT	brigade operational legal team
BOS	battlefield operating system
BP	battle position
BSA	brigade support area
BSB	brigade support battalion
BSMC	brigade support medical company
BUA	built-up area

CAS	close air support
CASEVAC	casualty evacuation
CBRNE-CM	chemical, biological, radiological, nuclear, and high-yield explosive consequence management
CCIR	commander's critical information requirements
CCP	casualty collection point
CFZ	critical friendly zones
chem	chemical
CHS	combat health support
CI	counterintelligence
CLS	combat lifesaver
CLU	command launch unit
CMOC	civil military operations center
CO	company commander
COA	course of action
COMSEC	communications security
CONOPS	contingency operations
CONUS	continental United States
COP	common operational picture
CP	command post; concrete piercing
CPHD	Copperhead
CPOG	chemical protective overgarments
CRT	combat repair team
CS	combat support
CSS	combat service support
CSSC	combat service support company
DA	Department of the Army
DEUCE	deployable universal combat earthmover
DLIC	detachment left in contact
DLY	delay
DM	designated marksman
DPICM	dual-purpose improved convention munition
DOD	Department of Defense
DS	direct support
DSO	domestic support operation
DX	direct exchange
DZ	drop zone
EA	engagement area
EENT	end of evening nautical twilight
EFST	essential fire support task
EOD	explosive ordnance disposal
EPLRS	enhanced position location reporting system
EPW	enemy prisoner of war
ESV	engineer support vehicle

FA	field artillery
FASCAM	family of scatterable mines
FBCB2	Force XXI battle command brigade and below
FCL	final coordination line
FDC	fire direction center
FEBA	forward edge of battle area
FFIR	friendly forces information requirements
FHA	foreign humanitarian assistance
FIST	fire support team
FLOT	forward line of own troops
FM	frequency modulated; field manual
FMC	forward maintenance company
FO	forward observer
FPF	final protective fire
FPL	final protective line
FRAGO	fragmentary order
FS	fire support
FSCM	fire support coordination measure
FSE	first support element
FSEM	fire support execution matrix
FSO	fire support officer
FSV	fire support vehicle
G/VLLD	ground/vehicle laser locator designator
GPS	global positioning system
GS	general support
GSR	ground surveillance radar
GS-R	general support-reinforcing
GT	gun target
HAZMAT	hazardous materials
HC	hydrogen chloride
HCA	humanitarian and civic assistance
HCP	health and comfort pack
HDC	headquarters distribution company
HE	high explosive
HEAT-T	high explosive, antitank, tracer
HEDP	high explosive, dual purpose
HEP-T	high explosive, plastic, tracer
HHC	headquarters and headquarters company
HMEE	high-mobility engineer excavator
HMEE-LHS	high-mobility engineer excavator, load-handling system
HMMWV	high-mobility, multiwheeled vehicle
HPT	high-payoff target
HSS	health service support
HTU	handheld terminal unit

HUMINT	human intelligence
I^2R	imaging infrared
ICV	infantry carrier vehicle
IAW	in accordance with
IBCT	interim brigade combat team
illum	illumination
IPB	intelligence preparation of the battlefield
IR	infrared
IREMBASS	improved remotely monitored battlefield sensor system
ISB	intermediate staging base
IV	intervisibility
JP	joint publication
JP8	Army common fuel
JWARN	joint warning and reporting network
KIA	killed in action
K-kill	catastrophic kill
LCE	load-carrying equipment
LD	line of departure
LOA	limit of advance
LOGPAC	logistics package
LOS	line of sight
LRP	logistics release point
LZ	landing zone
MANPADS	man-portable air defense system
MBA	main battle area
MBC	mortar ballistics computer
MC	mortar carrier
MCOO	modified combined obstacle overlay
MDMP	military decision-making process
MDS	modular decontamination system
MEC	medium engineer company
MEDEVAC	medical evacuation
MEL	maximum engagement line
METT-TC	mission, enemy, terrain, troops and time available, civilians
MEV	medical evacuation vehicle
MGS	mobile gun system
MI	military intelligence
MICLIC	mine clearing line charge
min	minute(s)
mm	millimeter(s)
MO	multioption
MOE	measure of effectiveness

MOGAS	motor gasoline
MOPMS	modular pack mine system
MOPP	mission-oriented protective posture
MP	military police
MPAT	multipurpose antitank
MR	moonrise
MRB	motorized rifle battalion
MRE	meal, ready to eat
MRP	motorized rifle platoon
MS	moonset
MSC	maneuver support cell
MSL	minimum safe line
MSR	main supply route
MTC	movement to contact
MWR	morale, welfare, and recreation
NAI	named area of interest
NBC	nuclear, biological, and chemical
NBCWRS	nuclear, biological, and chemical warning and reporting system
NCA	National Command Authority
NCO	noncommissioned officer
NCS	net control station
NEO	noncombatant evacuation operations
NFA	no-fire area
NGO	nongovernmental organization
NLT	not later than
NUC	nuclear
NVD	night vision device
OAKOC	observation and fieldsof fire, avenues of approach, key terrain, observation, and cover and concealment
OBJ	objective
OBSTINTEL	obstacle intelligence
OIC	officer in charge
OP	observation post
OPCON	operational control
OPLAN	operations plan
OPLAW	operational law
OPORD	operations order
OPSEC	operational security
ORP	objective rally point
OTM	on-the-move
OTN	own the night
PAO	public affairs officer
PC	personnel carrier

PCC	precombat check
PCI	precombat inspection
PD	point-detonating
PEWS	platoon early warning system
PIR	priority intelligence requirements
PL	phase line; platoon leader
PLD	probable line of deployment
PMCS	preventive maintenance checks and services
POF	priority of fire
POL	petroleum, oils, and lubricants
POSNAV	position navigation
PP	passage point
PSG	platoon sergeant
PSYOP	psychological operations
PVO	private volunteer organization
PZ	pickup zone
R&S	reconnaissance and surveillance
RAAM	remote antiarmor mine
RATELO	radiotelephone operator
RCPA	relation combat power analysis
RCU	remote control unit
RD	round
REDCON	readiness condition
RFL	restrictive fire line
ROE	rules of engagement
ROI	rules of interaction
ROM	refuel on the move
RP	release point; red phosphorous
RPG	rocket-propelled grenade
rpm	rounds per minute
RPOL	rearward passage of lines
RSTA	reconnaissance, surveillance, and target acquisition
S1	adjutant
S2	intelligence officer
S3	operations and training officer
S4	supply officer
S5	civil affairs officer
S6	communications staff officer
SCATMINE	scatterable mine
SCATMINWARN	scatterable mine warning
SD	self-destruct
SEAD	suppression of enemy air defense
SHORAD	short-range air defense
SINCGARS	single-channel ground airborne radio system

SITREP	situation report
SITEMP	situational template
smk	smoke
SOI	signal operating instructions
SOP	standing operating procedure
SOSR	suppress, obscure, secure, and reduce
SP	start point
SPOTREP	spot report
SQD	squad
SR	sunrise
SS	sunset
SU	situational understanding
TAI	target areas of interest
TCP	traffic control point
TDA	table of distribution and allowances
TI	tactical internet
TIME	adjustable time delay
TLP	troop-leading procedures
TO&E	table of organization and equipment
TOC	tactical operations center
TPME	task, purpose, method, and effects
TRP	target reference point
TSM	target synchronization matrix
TTP	tactics, techniques, and procedures
UAV	unmanned aerial vehicle
UMT	unit ministry team
UN	United Nations
UO	urban operations
US	United States
USACE	United States Army Corps of Engineers
VT	variable time
VC	vehicle commander
WARNO	warning order
WCS	weapons control status
WIA	wounded in action
WMD	weapons of mass destruction
WP	white phosphorus
WP-T	white phosphorus, tracer
WSRO	weapons system replacement operations
XO	executive officer

REFERENCES

DOCUMENTS NEEDED
These documents must be available to the intended users of this publication.

DA Form 1155	Witness Statement on Casualty Incident. 1 June 1966.
DA Form 1156	Casualty Feeder Report. 1 June 1966.
DA Form 2404	Equipment Inspection and Maintenance Worksheet. 1 April 1979.
DA Form 5988-E	Equipment Inspection Maintenance Worksheet. March 1991.

SOURCES USED
These are the sources quoted or paraphrased in this publication.

FM 7-10 (FM 3-21.10)	The Infantry Rifle Company. 14 December 1990.
FM 71-1 (FM 3-90.1)	Tank and Mechanized Infantry Company Team. 26 January 1998.

READINGS RECOMMENDED
These sources contain relevant supplemental information.

FM 3-7 (FM 3-11.7)	NBC Field Handbook. 29 September 1994.
FM 3-11.5 (FM 3-5)	NBC Decontamination. 28 July 2000. Change 1, 31 January 2002.
FM 3-21.21 (FM 7-22)	IBCT Battalion. DRAFT
FM 3-34.2 (FM 90-13-1)	Combined-Arms Breaching Operations. 31 August 2000. Change 2, 23 February 2001.
FM 3-90 (FM 100-40)	Tactics. 4 July 2001.
FM 5-7-30 (FM 3-34.223)	Brigade Engineer and Engineer Company Combat Operations (Airborne, Air Assault, Light). 28 December 1994.
FM 5-71-2 (FM 3-34.222)	Armored Task-Force Engineer Combat Operations. 28 June 1996.
FM 5-103 (FM 3-34.112)	Survivability. 10 June 1985.

FM 7-8 (FM 3-21.8)	Infantry Rifle Platoon and Squad. 22 April 1992.
FM 7-10 (FM 3-21.10)	The Infantry Rifle Company. 14 December 1990.
FM 7-20 (FM 3-21.20)	The Infantry Battalion. 6 April 1992.
FM 7-90 (FM 3-21.90)	Tactical Employment of Mortars. 9 October 1992.
FM 7-98 (FM 3-21.98)	Long-Range Surveillance Unit Operations. 3 October 1995.
FM 8-10-6 (FM 4-02.2)	Medical Evacuation in a Theater of Operations, Tactics, Techniques and Procedures. 14 April 2002.
FM 17-95 (FM 3-20.95)	Cavalry Operations. 24 December 1996.
FM 20-32 (FM 3-34.32)	Mine/Countermine Operations. 29 May 1998.
FM 21-18 (FM 3-21.18)	Foot Marches. 1 June 1990.
FM 21-76 (FM 3-05.70)	Survival. 5 June 1992.
FM 23-10 (FM 3-22.10)	Sniper Training. 17 August 1994.
FM 27-10 (FM 1-04.10)	The Law of Land Warfare. 18 July 1956.
FM 90-4 (FM 3-97.4)	Air Assault Operations. 16 March 1987.
FM 90-7 (FM 3-34.1)	Combined Arms Obstacle Integration. 29 September 1994.
FM 90-10 (FM 3-97.10)	Military Operations on Urban Terrain (MOUT) (How to Fight). 15 August 1979.
FM 90-10-1 (FM 3-06.11)	An Infantryman's Guide to Combat in Built-Up Areas. 12 May 1993.
FM 100-5 (FM 3-0)	Operations. 14 June 1993.
FM 100-10 (FM 4-0)	Combat Service Support. 3 October 1995.
FM 100-14 (FM 5-19)	Risk Management. 23 April 1998.
FM 100-19 (FM 3-07.7)	Domestic Support Operations. 1 July 1993.
FM 100-20 (FM 3-07)	Military Operations in Low-Intensity Conflict. 5 December 1990.
FM 100-23 (FM 3-07.3)	Peace Operations. 30 December 1994.
FM 101-5 (FM 5-0)	Staff Organization and Operations. 31 May 1997.

FM 101-5-1 (FM 1-02)	Operational Terms and Graphics. 30 September 1997.
Joint Pub 1-02	Department of Defense Dictionary of Military and Associated Terms. 12 April 2001.
Joint Pub 3-07	Joint Doctrine for Military Operations Other Than War. 16 June 1995
Joint Pub 3-07.2	Joint Tactics, Techniques, and Procedures for Antiterrorism. 17 March 1998.
Joint Pub 3-07.3	Joint Tactics, Techniques, and Procedures for Peace Operations. 12 February 1999.

INTERNET WEB SITES USED:
The following web sites were used in the preparation of this manual.

U. S. Army Publishing Agency, http://www.usapa.army.mil

Army Doctrine and Training Digital Library, http://www.adtdl.army.mil

INDEX

air assault, 7-27
air defense
  defensive BOS, 5-8
  offensive BOS, 4-11
air defense artillery
  combat support, 10-42 through 10-46
  early warning procedures, 10-44
  employment, 10-43
  reaction procedures, 10-44, 10-45, 10-46 (illus)
  systems, 110-42, 10-43 (illus)
  weapons control status, 10-44
ambush, type of attack, offensive, 4-34
approach-march
  technique in movement to contact, 4-28 through 4-33
assembly areas, G-4 through G-7
  action in, G-6, G-7
  occupation of, G-5, G-6 (illus)
  offensive operations, 4-7
  quartering party operations, G-5
attack
  deliberate, 4-19, 4-20
  hasty, 4-18, 4-19
  limited visibility, 4-45 through 4-54
  offensive operations, 4-3
    characteristics, 4-17
    spectrum of, 4-18 (illus)
  special purpose attacks, 4-33 through 4-37 (see also individual entries)
  techniques, 4-37 through 4-54 (see also individual entries
  urban operations, deliberate, 6-21, 6-22 (illus), 6-23

battalion organization, overview, 1-3, 1-4 (illus)
battlefield operating systems (see also individual entries)
  defensive operations, 5-5 through 5-13
  offensive operations, 4-10 through 4-13
  overview, 1-19 through 1-21
battle position
  defensive, 5-16 through 5-18
    alternate position, 5-16 (illus)
    engagement areas, 5-19 (illus)
    platoon battle position, defense of, mutually supporting, 5-18 (illus)
    supplementary, 5-16, 5-17 (illus)
BOS (see battlefield operating systems)
bounding overwatch
  movement technique, 3-6 through 3-8
    alternate, 3-8
    dismounted, 3-7 (illus)
    mounted, 3-8
    successive, 3-8
  offensive activity, 4-59
breach, strongpoint assault, 4-38, 4-42 (illus)
breaching, 7-23 through 7-27
  steps (SOSRA), 7-24
  tenets, 7-23 through 7-25
  types, 7-25
brigade organization, overview, 1-2, 1-3 (illus)

checkpoint, establish, in stability operations, 8-13 through 8-15 (illus)
civil considerations, analysis of during TLP, 2-20
classes of supply, 11-12 through 11-14 (illus)
COA (see course of action)
column, movement formation, 3-9 through 3-11
  dismounted, 3-10 (illus)
  mounted, 3-11 (illus)
combat orders, overview, 2-4, 2-5
combat service support
  assets, 1-13, 1-14 (illus)
  defensive BOS, 5-13
  offensive BOS, 4-11
combat support
  air defense artillery (see also separate entry), 10-42 through 10-47
  assets, 1-12 (illus), 1-13 (illus)
  command and support relationship, 10-1, 10-2
  engineer (see also separate entry), 10-31 through 10-42
  fires support (see also separate entry), 10-2 through 10-31
  NBC, 10-46, 10-47
  operation, 10-1 through 10-47
command and control
  BOS, overview, 1-19
  concept, 2-1
  convoy, escort mission, 8-17 through 8-21
  definition, 2-1
  fundamentals, 2-2
  responsibilities, 2-3

urban operations, defense, 6-40, 6-41
urban operations, offense, 6-16
counterattack
defense, 5-4
type of attack, offensive, 4-36
course of action
analysis of, during TLP, 2-24
development, during TLP, 2-22 through 2-24
war game, during TLP, 2-25, 2-26

defense, 5-1 through 5-48
battle position, 5-16
characteristics, 5-2, 5-3
linear, 5-26 (illus)
non-linear, 5-27 (illus), 5-28
perimeter, 5-21 through 5-26
reverse slope, 5-28 through 5-32
sector, 5-14, 5-15 (illus)
sequence, 5-3 through 5-5
strongpoint, 5-19, 5-20 (illus)
techniques (see also individual entries), 5-13 through 5-41
types, 5-1
urban operations, in, 6-30 through 6-51
types, 6-42 through 6-51
delay, 5-42 through 5-44 (illus)
techniques, 5-43, 5-44
alternating positions, 5-44
subsequent positions, 5-43, 5-44 (illus)
types, 5-42
demonstration, type of attack, offensive, 4-37
direct fire planning and control, H-1 through H-21
control measures, H-10 (illus)
fire commands, H-20, H-21
fire patterns, H-14 (illus)
friendly-based quadrants, H-13 (illus)
target array, H-15
terrain-based quadrants, H-12 (illus)
weapons safety posture levels, H-18 (illus)
linkup, 7-6
planning, H-7 through H-9
principles, H-1, H-2, H-3
process, H-3 through H-6

echelon, 3-16 through 3-18
enemy
analyzing during TLP, 2-16 through 2-19 (illus)
assault, in defensive operations, 5-4
engagement area
battle position, 5-19 (illus)
development, in the defense, 5-31 through 5-37
enemy avenue of approach, 5-31, 5-32 (illus)
indirect fires, 5-36, 5-37 (illus)
obstacles, 5-35, 5-36 (illus)
rehearsal, 5-37
scheme of maneuver, enemy, 5-32, 5-33 (illus)
weapons systems, emplacement, 5-34, 5-35 (illus)
engineers, combat support, 10-31 through 10-42
countermobililty, 10-36 through 10-41
mobility, 10-35, 10-36 (illus)
organization and capabilities, 10-31 through 10-34, 10-33 (illus), 10-34 (illus)
envelopment, form of maneuver, 4-3, 4-4 (illus)
exploitation, type of offensive operation, 4-3, 4-33

feint, type of attack, 4-36
file
movement formation, 3-14 through 3-16
dismounted, 3-15 (illus)
mounted, 3-16 (illus)
fire support
close support, 10-22, 10-23
combat support, 10-2 through 10-31
indirect fire capability, 10-2, 10-3 (illus), 10-4 (illus)
communications, 10-20, 10-21 (illus)
defensive BOS, 5-7, 5-8
final protective fires, 10-17 (illus)
fire support team, 10-23
matrix, 10-14, 10-15, 10-16 (illus)
mortars, 10-23, 10-24 (illus), 10-25 (illus), 10-26 (illus)
offensive BOS, 4-10
quick fire channel, 10-21, 10-22 (illus)
targets, 10-16, 10-17
team organization, 1-12, 1-13 (illus)

urban operations, employment of, 6-36 through 6-40
fratricide avoidance, F-1 through F-3
frontal attack, form of maneuver, 4-7

guard, security oeprations, 7-13 through 7-17, 7-16 (illus)

health service support
casualty evacuation, 11-24, 11-25, 11-26 (illus), 11-27 (illus)
in CSS, 11-23 through 11-27

infantry rifle company, organization overview, 1-4, 1-5 (illus)
infiltration
form of maneuver, 4-5, 4-6 (illus)
offensive activity, 4-54 through 4-58
search-and-attack, 4-25 (illus)
Javelin employment, A-1 through A-12
capabilities, A-3
considerations in employment, A-4
firing pair, A-5 (illus)
flight profile, top attack mode, A-7 (illus)
direct attack mode, A-8 (illus)
limitations, A-4
range, A-10, A-11 (illus)
sectors of fire, A-5 (illus)
standoff range, A-6 (illus)
technical characteristics, A-1 (illus)
urban operations, 6-35, 6-43, A-7

line, movement formations, 3-11, 3-12
dismounted, 3-12 (illus)
mounted, 3-12 (illus)
linear assault
follow-and-support, 4-53 (illus)
offensive, 4-51 (illus)
modified, 4-50
support element, 4-52 (illus)
linkup, tactical enabling operation, 7-5 through 7-8

maintenance operations, in CSS, 11-21, 11-22
maneuver
defensive operations, 5-5 through 5-7
defined, 3-1
offensive operations, 4-8, 4-9
relationship to movement, 3-1, 3-1 (illus)
medical team organization, 1-13, 1-14 (illus)
METT-TC
urban operations, factors in, 6-11 through 6-16, 6-15 (illus)
use of, during TLP, 2-8 through 2-20
MDMP (see military decision-making process)
military decision-making process
integration of, in TLP, 2-5, D-1, D-2 (illus)
mission
receive the mission, in TLP, 2-7 through 2-22 (see also individual entries)
analysis of, in TLP, 2-7 through 2-9
mobile gun system
capabilities, B-3
defensive operations, B-7, B-8, B-9 (illus)
limitations, B-3
offensive operations, B-4 through B-7
support by fire, B-5 (illus)
bypass, B-5, B-6 (illus), B-7 (illus)
platoon, B-1 through B-20
organization, 1-10, 1-11 (illus), B-1 (illus)
responsibilities, B-2
stability and support operations, B-15 through B-20
traffic control points, B-19 (illus)
cordon and search, B-20 (illus)
urban operations, B-9 through B -15
dead space, B-13 (illus)
employment in, 6-3, 6-4 (illus), 6-5 (illus), 6-6 (illus), 6-9 (illus), 6-35, 6-36, 6-44
vehicle hide position, B-15 (illus)
mobility, countermobility, survivability (see also engineer)
defensive BOS, 5-9
offensive BOS, 4-11
mortar
combat support, 10-23 through 10-31
section organization, 1-12 (illus)
movement
control techniques, 3-22
defined, 3-1
formations (see also individual entries), 3-8 through 3-19
considerations, 3-9

selection, 3-18
comparison, 3-19 (table)
use of, 3-19 through 3-21
initiation of, during TLP, 2-26
relationship to maneuver, 3-1, 3-2 (illus)
security during, 3-23 (illus), 3-24
techniques, 3-2 through 3-8 (see also individual entries)
urban operations, 6-20 through 6-29
movement to contact
considerations for, 4-31, 4-32 (illus)
offensive operations, 4-3
planning considerations, 4-21
techniques, 4-27 through 4-33 (see also approach-march) (see also search-and-attack)

NBC (see nuclear, biological, chemical)
night vision devices, 4-46 (illus), 4-49, 4-50
nuclear, biological, chemical
combat support, 10-46, 10-47
reconnaissance support, 10-46
decontamination support, 10-47

OAKOC (see terrain)
observation post, established, during stability operations, 8-12, 8-13 (illus)
obstacles
actions at, during stability operations, 8-20, 8-21
combat support, countermobility, 10-36 through 10-41
lanes, 5-12
plan and integrate, in engagement areas, 5-35, 5-36 (illus)
protective, in defensive operations, 5-11
tactical, in defensive operations, 5-10, 5-11 (table)
urban operations, 6-33 (illus)
wire, 5-12 (illus)
offense, 4-1 through 4-63
actions on contact, 4-13 through 4-17
four steps of, 4-14
attack, 4-17 through 4-21 (see also attack)
bypass, 4-60
clear an objective, 4-60
follow and support, 4-59
forms of maneuver, 4-3 through 4-7 (see also individual entries)
sequence of, 4-7 through 4-10
types of operations, 4-2, 4-3 (see also individual entries)
urban operations, 6-10
operation order
higher headquarters, 2-7, 2-8, 2-9, 2-17
issue, during TLP, 2-28
preparation of, in TLP, 2-6
OPORD (see operation order)
overwatch, 4-58

passage of lines
forward passage of lines, 7-21, 7-22 (illus)
planning, 7-20
rearward passage of lines, 7-22, 7-23 (illus)
reconnaissance coordination, 7-20
tactical enabling operation, 7-19 through 7-22
penetration, 4-6, 4-7 (illus)
perimeter defense
company, 5-22 (illus)
Y variation, 5-23, 5-24 (illus)
priority of work, defensive, 5-38 through 5-41
pursuit, offensive operation, 4-3, 4-33

raid, 4-35
Raptor/Hornet, 10-39, 10-40 (illus)
reconnaissance
conduct of, during TLP, 2-27
defense, 5-3
NBC, in combat support, 10-46
offense, 4-8, 4-47
passage of lines, 7-20
tactical enabling operation, 7-1 through 7-5, 7-3 (illus)
relative combat power
analysis of, during TLP, 2-23
matrix, 2-23 (illus)
reserve, offense, 4-62
resuply
company techniques, 11-18
emergency, 11-17
LOGPAC, 11-15
methods (mounted), 11-15
service station, 11-16 (illus)
tailgate, 11-17 (illus)
prestock, 11-17
routine, 11-14

retirement (see also retrograde operations), 5-48
retrograde operations, 5-41 through 5-48
delay, 5-42 through 5-44 (illus)
retirement, 5-48
withdrawal, 5-45 through 5-47 (illus)
rifle platoon
headquarters, 1-7, 1-8 (illus)
mounted element, 1-8, 1-9 (illus)
organization, 1-6, 1-7 (illus)
rifle squad, 1-9, 1-10 (illus)
weapons squad, 1-10 (illus)
risk assessment, during TLP, 2-21
risk management, E-1 through E-6
command climate, E-6
potential hazards, E-2 (illus)
risk levels, E-3 (illus)
worksheet, E-3 (illus)
road march, G-1 through G-4
control measures, G-2
march columns, G-1
planning considerations, G-1
quartering party, G-2
rules of engagement, stability operations, 8-1
rules of interaction, stability operations, 8-2

SBCT (see Stryker brigade combat team)
scatterable mines
countermobility in combat support, 10-38 (illus), 10-39 (illus)
delivery systems, 10-39
marking, 10-40, 10-41 (illus), 10-42 (illus)
search-and-attack
technique in movement to contact, 4-22 through 4-27 (illus)
security
defensive operations, 5-3
offensive operations, 4-63
security operations, tactical enabling operation, 7-8 through 7-18
forms of operations, 7-8
guard, 7-13 through 7-17
local security, 7-17
planning, 7-8 through 7-11
screen, 7-11 through 7-13
sniper, C-1 through C-7
built-up areas, C-6
defensive operations, C-4
offensive operations, C-3
stability operations, C-5
team organization, 1-11, 1-12 (illus)
soldier's load, 11-4 through 11-8
Javelin employment, considerations, A-7
load echelon, 11-5 (illus)
SOSRA (see breaching)
spoiling attack, type of attack, offense, 4-35
stability operations, 8-1 through 8-22
planning considerations, 8-1 through 8-4
tasks, 8-6 through 8-22
types, 8-4 through 8-6
strongpoint
assault of, as attack technique, 4-37 through 4-45
defense, 5-19, 5-20 (illus)
urban operations, defense of, 6-48, 6-49 (illus), 6-50
Stryker brigade combat team
capabilities and limitations, 1-1, 1-2 (illus)
characteristics, infantry rifle company, 1-1
CSS, 11-9 through 11-12
key personnel duties, responsibilities, 1-14 through 1-19
operational premise, 1-1
organization, 1-3 through 1-14 (see also individual entries)
urban operations, 6-1 through 6-3
support operations, 9-1 through 9-7
CBRNE consequence management, 9-3
considerations for, 9-5, 9-6
domestic support, 9-1
foreign humanitarian assistance, 9-2
phases of, 9-6, 9-7
relief operations, 9-2

terrain
analysis of, during TLP, 2-9 through 2-15
avenue of approach, 2-12, 2-13 (illus)
classifying terrain mobility, 2-10
cover and concealment, 2-15 (illus)
key terrain, 2-13, 2-14 (illus)
OAKOC, 2-10, 2-11 (illus)
observation and fields of fire, 2-14, 2-15 (illus)
obstacles, 2-11, 2-12 (illus)
prioritizing terrain analysis, 2-10
visual aids, 2-10

time available, analysis of, during TLP, 2-19, 2-20 (illus)
TLP (see troop-leading procedure)
trains, combat service support, 11-8, 11-9
traveling
  movement technique, 3-3, 3-4 (illus)
    dismounted, 3-4 (illus)
    mounted, 3-4 (illus)
traveling overwatch
  movement technique, 3-5, 3-6
    dismounted, 3-5 (illus)
    mounted, 3-6 (illus)
  offensive activity, 4-59
troop-leading procedure, 2-5 through 2-28
  application, 2-5 (illus) through 2-7
  integration with MDMP, D-1, D-2 (illus)
turning movement, 4-4, 4-5 (illus)

urban operations, 6-1 through 6-51
  battle command in, 6-16 through 6-18
  defense in, 6-30 through 6-51
  employment considerations, SBCT, 6-1 through 6-3
  MGS, employment in, 6-3 through 6-9
  movement, 6-20 through 6-29
  offense in, 6-10 through 6-29
  task organization, 6-18 through 6-20

vee, ovement formation, 3-13, 3-14
  dismounted, 3-14 (illus)
  mounted, 3-14 (illus)
vehicle laager, tactical enabling operations, 7-18, 7-19

war game (see course of action)
warning order, 2-6, 2-22
WARNO (see warning order)
weapons replacement, in CSS, 11-28, 11-29
wedge, ovement formation, 3-12, 3-13
  dismounted, 3-13 (illus)
  mounted, 33-13 (illus)
withdrawal (see also retrograde operations)
  assisted, 5-45, 5-47
  unassisted, 5-46, 5-47 (illus)

FM 3-21.11
23 JANUARY 2003

By Order of the Secretary of the Army:

ERIC K. SHINSEKI
General, United States Army
Chief of Staff

Official:

JOEL B. HUDSON
Administrative Assistant to the
Secretary of the Army
0307708

DISTRIBUTION:

Active Army, Army National Guard, and U. S. Army Reserve: To be distributed in accordance with initial distribution number 115894, requirements for FM 3-21.11.

PIN: 080698-000